Beyond Law Reform:
Revitalising Thai Environmental Regulation

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This thesis is my own original work.

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Abstract

In Thailand, environmental problems, including air and water pollution, have been intensifying over the last few decades. The problems stem from the country's single minded pursuit of economic growth by means of industrialisation. As the environmental consequences of industrialisation became more severe, so gradually, were environmental laws enacted to mitigate the problems. The first laws proved almost wholly ineffective but more was hoped from the landmark environmental law reforms of 1992 (referred in this thesis as the 'big bang' reforms). These reforms introduced a number of innovative measures, including the polluter-pays principle, economic incentives, public participation, and strict civil liability. However, these laws too have had very little positive impact.

Part One of this thesis examines the reformed laws and asks why they have been so ineffective. It locates many of the failings within particular aspects of Thai politics and culture. These include particular aspects of the Thai political system which served to emasulate both the laws themselves and the capability for their enforcement, and distinctive aspects of Thai culture including respect for authority, the culture of compromise, the culture of gratitude, regulatory capture and corruption.

Against this background, Parts Two and Three of the thesis argue that a new strategy for environmental protection is required, and in particular, a new approach to environmental regulation (broadly defined). But what type of regulation is best suited to Thailand's unique circumstances? Focussing on air and water pollution (two of Thailand's most serious problems) and drawing from the literature on developed and developing countries and from the writer's own empirical work, the answer is provided in two stages. The first examines instruments which might be developed at domestic level, the second, at international initiatives.

From a domestic perspective, the thesis argues that there will be merit in developing particular measures incorporating environmental education and training, disclosure of environmental information, economic instruments, self-regulation, and command and control regulation. From an international perspective, the thesis focuses on the

particular roles of international soft law, the roles and leverage provided by a range of international and regional institutions (and in particular environmental conditions imposed by World Bank loans and, implementation of the good governance principle mandated by the IMF) and implementation of environmental management systems under ISO 14001.

Throughout, it is argued that that it is inappropriate to simply take "off the shelf" theories and solutions which may have worked in developed countries such as the USA, Canada, the UK or Australia. While these theories may provide some insights and some may indeed prove useful in Thailand, nevertheless Thai culture, society and politics, are quite distinctive. It will only be by designing solutions appropriate to the Thai context, that effective regulation and positive environmental outcomes, are likely to be achieved.

Table of Contents

Chapter 1: Introduction 1

Part One

Chapter 2: The 'Big Bang' and Before: A History of Environmental Regulation in Thailand 12

I. The Early Years 12
II.The 'Big Bang' reform of 1992 17

A. Institutional Reorganisation 17
B. The role of NGOs and the right to know 19
C. Polluter Pays Principle 21
D. Strict Civil Liability 22
E. Incentive Measures 22
F. Designation of Pollution Control Area 24
G. Decentralisation of Environmental Planning 24

Chapter 3: The Aftermath of the 'Big Bang' Reform: A Story of Failure 25

I. Overview of the situation 25
II. Selected case for air and water pollution 28

A. Air Pollution
1. Mab Ta Phut case 28
2. Mae Moh case 30

B. Water Pollution
1. Phoenix Pulp and Paper case 32
2. Klity Mine case 33

Chapter 4: Detailed Analysis of the Reasons for Failure 36

Introduction 36
I. Character of Laws 36
II. Agency's task environment 40

A. Financial support and number of regulators 40
B. Lack of sufficiently heavy penalties 42
C. Political Will 44
D. Regulatory Capture 45
E. Size of Firm: The ability to comply 47
F. Cultures 51

Chapter 5: The Problem of Corruption in Thailand

Introduction
I. Corruption and Regulatory Failure 61
A. Overview of Corruption Internationally 61
B. Corruption in Thailand 64
1. Bureaucratic Corruption 64
2. Political Corruption 66
Establishment of the National Counter Corruption Commission (NCCC): another attempt to fight against political 68

II. Corruption and Failure of Environmental Regulation 69
A. Corruption and Discretion 69
B. Opportunity arising from development 78

Conclusion to Part One 81

Part Two

Chapter 6: Domestic Strategies in making Thai Environmental RegulationWork 83

Introduction 83

I. Environmental Education and Training
A. The need for environmental education and training: an overview 85
B. Thailand's current action with regard to environmental education and training 87
C. Target groups for 'off-camps' environmental and Training 90
D. Shortcoming of environmental edution in Thailand 95
E. Suggestions for reforms

II. Disclosure of environmental information 102
Community Right to Know 103
A. Government and disclosure of environmental Information 104
B. Disclosure from industry to the public 105
1. Mandatory Evironmental Reporting 105
2. Green Labeling: Optional Environmental Reporting 111
3. Voluntary Environmental Reporting 116
C. Other information-based approaches in Thailand 120
D. Will disclosure of environmental information be effective In Thailand 122

III. Economic Instruments 124
A. Pollution Charge and Tax System 126
The weaknesses of taxes and charges 129
Applying charges and taxes in the Thai context 131

B. Property Rights 133
Thailand, air and water pollution, and the role of Property Rights 134
C. Tradable Emission Permits 136
Tradable emission permits schemes in practice: lessons for Thailand 139
D.Subsidies 144
Thailand and subsidies 145
E. Financial Instruments 147
Thailand and financial instruments 148
F.Civil Liability 150
Thailand and strict civil liability in environmental cases 151
G. Performance Bonds 155
Thailand and environmental performance bonds 156
Conclusion 156

IV. Self-regulation 158
A. Need for Self-regulation 158
B. Forms of Self-regulation 162
1. Self-regulation by individual firms 163
2. Industry-based Self-regulation 166
C. Weaknesses of Self-regulation 167
D. Towards effective self-regulation in Thailand 171
1. Community of shared fate 172
2. Power of Regulatory Body 178
3. Third Party Oversight 181
4. Government Involvement 183
5. Foreign Investment from Transnational Corporation 184
Conclusion 187

V. Command and Control Regulation 188
A. Command and Control and the role of sanctions 188
1. Criminal Penalties 189
2. Administrative Measures 191
B. Strengths and Weaknesses of Command and Control 193
C. Making Command and Control Regulation work In Thailand 196
1. The Enforcement Pyramid Paradigm 196
2. Tough Penalties (Big Sticks) 200
3. Tripatism 203
4. Publiciy of Prosecution Outcome 210
D. Command and Control in the Thai Cultural and Political ontext 212
Conclusion 214

Part Three

Chapter 7: International Dimension of Thai Environmental Regulation 217
Introduction 217
I. International Environmental Law: Sources and Character 218
II. International Law as it affects Thailand's domestic environmental responsibilities 221
A. International law that has 'direct' effects on Thailand's air and water pollution laws 221
1. The Stockholm Declaration 221
2. The Rio Declaration 223
3. Agenda 21 225
B. International agreements that have 'indirect' effects on Thailand's air and water pollution laws 228
1. Vienna Convention and Montreal Protocol 229
2.Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal 230
3. The United Nations Framework on Climate Change 231
III. The Role of International Institutions 234
A. Agreement between the World Bank and assistance-receiving countries 235
The World Bank and its effect on Thailand's air and water pollution law 238
B. Agreement between the IMF and assistance-receiving countries 239
Good Governance: a vehicle for transparency 239
Good Governance and its effect on Thai air and water pollution laws 243
C. International Trade Agreements 245
Combatting corruption in international trade: a promising strategy to address environmental problems in Thailand 251
D. International Organization for Standardisation (ISO) 254
ISO 14000 in Thailand 260
ISO 14001 and its effect on Thai pollution laws 269
IV. Implementing international environmental regulations 269
The Role of non-governmental organisations (NGOs) in Implementing international environmental regulation at the Domestic level 271
NGOs and implementation of international environmental Regulation in Thailand 273
V. Conclusion 277

Chapter 8: Conclusion 279

Bibliography 291

Chapter 1

Introduction

I. The Research Context and Aims

Environmental problems pose a major threat to the well-being of the people of Thailand. These problems are complex and diffuse and include air, water, and noise pollution, the generation and inappropriate disposal of hazardous waste and deforestation. These problems have been intensifying over the last few decades, not least because Thailand's emphasis on achieving development and economic growth has led to a systematic neglect of the environmental effects of such industrialisation.

Environmental protection has been an explicit concern of the Thai government since at least 1975, when the first attempt was made to create a system of environmental regulation. Nevertheless, these laws have proved to be largely ineffective in ensuring environmental protection. Indeed, the situation has progressively deteriorated.

A significant change to this situation appeared to take place in 1992, when Mr Anand Panyarachun, the first prime minister to take an active interest in environmental issues, initiated an extensive series of environmental law reforms (referred to here as the 'big bang' reform). The most important piece of legislation to emerge from this initiative was the 1992 *Enhancement and Conservation of the National Environmental Quality Act*. This landmark environmental law reform introduced a number of innovative measures, including the polluter pays principle, community 'rights to know', and incentive measures similar to those used in many developed countries.

The 1992 law reform was based to a large extent on principles and legal doctrines which had been developed and applied in legislation in advanced industrialised countries, especially the United States. But there is a serious danger in taking 'off the peg', instruments and institutions that have worked well in one culture and set of economic circumstances, and applying them uncritically to another. Arguably, what works well in one country and context may not do so in another, and the failure to recognise this, and modify the regulatory strategy to local circumstances, may result in regulatory and implementation failure. And yet there has been almost no debate or awareness within

Thailand, or indeed outside, about the serious risks of regulatory cloning from developed to developing countries.

It was this concern with the severity of Thailand's environmental problems, and this insight concerning the inappropriateness of the means by which it is dealing with them, which shape this thesis. At the most basic level, my research questions are: does the 'big bang' reform yield satisfactory results in Thailand? If the answer is no, what are the causes of regulatory failure? And to what extent do these relate to the inappropriateness in the Thai context of the regulatory strategy adopted? In particular, how important are Thai culture and the social and economic circumstances of the country, to shaping appropriate environmental and regulatory strategies?

To the extent that the current approach seems seriously ill-advised, by what strategies and by what tools might one create a more appropriate and effective means of dealing with Thailand's chronic environmental problems? In particular, this thesis proposes a set of policy instruments and legal principles which can more efficiently reform environmental regulation in Thailand. Since environmental issues transcend national boundaries, and environmental law encompasses both national law and international law, the suggested policy instruments and legal principles are presented through an examination of environmental policy at both national and international levels.

Thus the thesis provides both a critique of the regulatory *status quo* and an agenda for reform, informed by the need to match instruments and institutions to Thailand's particular cultural, social and economic circumstances.

To examine these issues, it is necessary not only to analyse the relevant legislation, but to explore a broader set of questions relating to the relationship between law and society. On the one hand, the whole purpose of law reform is to change social behaviour. In this sense, law is to some extent separate from society as a tool to change behaviour. On the other hand, the law must in some important way connect with the lived experience of the society which it attempts to govern. If there is no such connection, then law could be seen as so far removed from society as to be irrelevant. If this should occur, then law reform will not be successful, even if it is comprehensive and detailed.

While this thesis does not attempt to provide a detailed examination of the complex issue of the relationship between law and society, it does examine the strengths and weaknesses of the 1992 environmental law reform within the context of Thai history and Thai culture. Seen from a broader perspective, this study attempts to examine how a developing country such as Thailand, which is intent on achieving rapid development, addresses, and can address, the environmental problems generated by this emphasis on economic growth.

II. Focus and Methodology of the Study

Thailand confronts a wide range of environmental problems. Two of the most serious are industrial air and water pollution, and it is these which are the subject matter of this thesis. This focus made it possible to study two major environmental problems in some depth, rather than attempting a broader, but more superficial examination of the many environmental problems affecting Thailand.

The study was conducted by using two major approaches: desktop research drawing from the available literature in the area, and empirical study based on fieldwork interviews. With regard to the former, the thesis draws substantially on books, articles, research papers, and proceedings of conferences from within the social sciences generally. The need to move beyond legal texts to this broader literature was essential because the effectiveness of law reform can only be understood through a wider examination of the social context in which this reform is taking place. As a result, while this thesis focuses on legal materials, it attempts to adopt the more inter-disciplinary approach the subject matter requires. Thus the materials examined include environmental law, ecology, economics, history and sociology.

While the available literature relating to the experience of developed countries is quite large, in contrast, the literature which seeks to apply this wisdom and to modify it to suit the circumstances of developing countries, is very modest indeed. It is not just that there is little relevant literature relating to Thailand specifically, but the literature relating to these issues as they apply to Asia generally is also very limited. Only the World Bank, only very recently, has made any concerted attempt to engage with the very different strategic environmental solutions necessitated by the very different social, economic and cultural contexts of developing countries. So to a substantial extent, it was

necessary to tread new ground, with very little preliminary information, when addressing the environmental challenge in Thailand.

For my empirical study, I interviewed as many as 44 people whose activities are related to the environmental situation in Thailand. These include parliamentarians, government officials, academics, NGOs representatives, business people and community representatives. These interviews were conducted with the idea of identifying the major environmental problems facing Thailand, and assessing the attitudes and approaches of people who are concerned with environmental issues from a wide variety of perspectives, so that I could better identify areas of agreement and divergence. In addition, the interviewees were able to provide me with expert, first-hand information about the problems of creating an effective system of environmental regulation.

While a Westerner accustomed to travelling across (for example) Washington DC with relative ease, might have sought to conduct a more ambitious number of interviews, the practicalities of interviewing in Bangkok are very different. In a city where chronic traffic congestion makes the journey from one side to the other extremely onerous, time consuming and unpredictable, the number of field interviews one can plan to conduct in a day is a fraction of those possible in a major Western city. Those with any experience of travelling in major Asian cities, whether Bangkok, Manila or Jakarta, will know first-hand, just what a challenge this can be.

Nevertheless, despite time and budgetary constraints, interviews were conducted with a very substantial number of the major decision-makers and other persons involved and the sample was quite representative. Only three respondents declined to be interviewed. The interviews themselves were based on personal knowledge of who the key individuals were, supplemented by 'snowball' sampling where necessary.

III. Plan of the Thesis

A. Part One

Part One of the thesis provides a brief discussion on the evolution of environmental law in Thailand, including its strengths and weaknesses and the economic, social and cultural reasons which account for its ultimate failure.

Chapter 2 begins by dealing with the historical background of environmental law in Thailand. It discusses the evolution of environmental law from 1975 responding both to the looming environmental disaster precipitated by water pollution from the sugar industry, and to international pressures, including the Stockholm Declaration in 1972. The chapter traces the development of the basic doctrines and principles within such a law, and its failure to stem the growth of yet more severe environmental problems. This provides a background to examine the ''big bang'' environmental law reform which took place in 1992 . The chapter explains the new legal doctrines and regulatory techniques introduced in the 1992 environmental law reform and shows how that reform provided for a number of innovative measures to create an effective and comprehensive environmental regulatory system. These measures include the recognition of the role of Non-governmental organisations (NGOs), community rights to know, the polluter payss principle, strict civil liability, and incentive measures.

Chapters 3-5 deal mainly with the aftermath of the 'big bang' reform. Chapter 3 offers an outline of the results of the reform and examines the current situation of air and water pollution in Thailand. By focusing on particular case studies, it provides us with disturbing findings. It suggests that especially in major cities like Bangkok, such pollution has not only become worse, but has generated very serious health problems for those who are substantially exposed to pollution. The chapter offers four case studies of both air and water pollution to demonstrate how the environmental condition in the country has been getting worse. These case studies also provide some insight into the reasons for the environmental deterioration and for the failure of the 'big bang' reforms.

These issues are explored more systematically in Chapter 4, which seeks to explain why the problems of air and water pollution in Thailand are still pervasive despite the

numerous innovative measures introduced in the 'big bang' reform. The chapter examines a number of factors responsible for environmental regulatory failure in Thailand: these range from ambiguities and imprecision in the law, to weaknesses in the institutions responsible for administering and enforcing the laws, and to more general social factors. While some of these factors are the same as those found in many other countries such as the lack of political will, and ability of firms to comply with regulation, others are unique in the context of Thailand as they are associated with social setting of the country. These are culture and corruption.

In relation to Thai culture, the chapter shows that a number of aspects of Thai culture have become impediments to regulatory success. These traits include: the sense of obligation arising from a feeling of gratitude; power-orientation; excessive love of freedom; and a belief in the rule of karma.

The problem of corruption is so pervasive in a developing country like Thailand, and corruption is so crucial in hampering the success of regulation that this issue is given separate consideration in Chapter 5. This chapter discusses how corruption disrupts regulation in many countries, and in Thailand particularly. Of more importance, it also investigates how corruption takes place and develops in Thailand, and how the country has reacted to this situation. Not least, it examines how corruption seriously undermines environmental regulation in Thailand.

B. Part Two

Parts Two and Three contain the core of the thesis. Recognising both the failure of the existing approaches and their cultural and economic causes, these parts seek to develop and design a very different approach to environmental regulation, broadly defined: one which is much more suited to, and which takes account of, Thailand's particular economic and cultural circumstances. Part Two (Chapter 6) attempts to achieve this goal of proposing appropriate policy instruments from a domestic perspective, Part Three (Chapter 7) does so from an international perspective.

Part Two (Chapter 6) suggests five approaches to improving environmental protection in Thailand. These are environmental education; disclosure of environmental information; economic instruments; self-regulation; and command and control

regulation. In proposing these approaches, the chapter draws upon previous discussions regarding the cultural, economic and political factors which affect environmental regulation in Thailand.

The analysis in the earlier chapters suggests that environmental law reform cannot be studied in isolation. Thus, the first approach examined in Chapter 6 focuses on the crucial question of environmental education. Environmental law reform, it is argued, will be far more likely to succeed if the general public understands and accepts the importance of a sound environment, and the ways in which the law seeks to ensure this. This issue is especially important in Thailand which has, for several decades, emphasised the important of rapid industrialisation. Environmental education is especially important because the enforcement of environmental laws, as the discussion of the 1992 reform suggests, is in many ways dependent on a knowledgeable public which can, for example, recognise and report environmental damage. Thus the chapter discusses the history of environmental education in Thailand, current efforts to provide such education to all parties involved in environmental protection, such as the public, environmental regulators, and the business community; and ways to further the cause of environmental education. In addition, it discusses the broader question of how education might contribute towards changing Thai attitudes regarding patronage and karma, for example, which impede the emergence of a civic culture which would respect and seek to protect community interests.

The second approach focuses on the disclosure of environmental information. In broad terms, the more information disclosed by the government relating to environmental performance and the environmental effect of industry activities, the better the prospects of effective enforcement and third party intervention. This approach, which is relatively new in Thailand, adopts a model of enforcement which is broader, more pluralistic and more far-reaching than models of enforcement which rely on a particular set of regulators to ensure enforcement.

The disclosure system aims to inform the general public; and hence the particular people who may be most affected by particular forms of pollution, of the sources and impacts of pollution. Thus the traditional model of enforcement, as performed by a specific set of regulators through the imposition of legal sanctions, may be extended in two ways. First, the disclosure system enables the public to participate more extensively

in enforcement. Secondly, enforcement may be achieved, not only by legal sanctions, but by reporting and assessing the environmental performance of businesses in ways which affect their reputations as respected members of the community, and further, may also affect the financial prospects of the business. The chapter discusses the possible uses of disclosure requirements imposed on the government and industry. Disclosure, furthermore, can be required by law or else a voluntary action in which businesses may choose to engage. The question of environmental disclosure is part of a larger campaign that is currently taking place in Thailand to enhance transparency and accountability in government as a whole. Once again, therefore, this approach is examined in the broader context of political and social developments within Thailand as a whole.

The third approach focuses on the use of different economic instruments to further environmental protection. These include pollution charge and tax systems, the establishment of a system of clearly defined property rights, the use of tradable emission permits and the provision of subsidies to reduce environmentally harmful behaviour. The chapter discusses the extent to which these instruments have been adopted in Thailand, and the problems associated with their effective incorporation into the Thai regulatory system, given the specific economic, political and social conditions prevailing in Thailand.

The next approach examined is self-regulation. This regulatory technique has emerged relatively recently. It involves, broadly, governments providing firms, or associations which have proved themselves to be responsible, with the authority to regulate themselves. While this system has a number of advantages when operating in its ideal form, it is still a new regulatory technique for many developing countries and the discussion concerning the chances of its success is necessarily speculative.

Finally, the chapter examines traditional command and control regulation techniques. This analysis takes the form of a reconsideration of these techniques in the light of the earlier discussion of the problems connected with them. Importantly, it considers command and control techniques not in isolation, but as one technique amongst others, and as one which is likely to be most successful when used in combination with the other, more innovative techniques discussed in the chapter.

C. Part Three

While Part II (Chapter 6) focuses on factors operating at the national level, Part III (Chapter 7) argues that international pressures could play a crucial role in helping address the environmental situation in Thailand. Environmental problems transcend national boundaries. As a result, in the last three decades there have been intensive efforts by the international community to develop a system of international environmental law which would address the intensifying problem of global environmental degradation. This chapter discusses the sources of international environmental law, including the principles embodied in the Stockholm Declaration and Agenda 21. It also examines international institutions such as the International Organization for Standardization (ISO) which has recently come up with ISO 14000, the international environmental standard that must be followed by companies intent on creating better environment management systems that would lead to improved environmental performance. This chapter examines these internationally articulated principles and standards, and the ways in which they could be applied in the Thai context to achieve better environmental standards.

Environmental protection at the international level cannot be examined in isolation from other areas of international law which affect environmental performance. Organisations such as the WTO are developing the connection between international trade and the environment. Furthermore, important international financial institutions such as the World Bank and the International Monetary Fund are examining carefully the relationship between development and the environment. Consequently, these institutions are bringing environmental concerns within the scope of their activities, even though such concerns do not traditionally fall within their scope. All these developments are changing the character of environmental regulation at the international level, and this chapter examines ways in which these developments may be used to further the cause of environmental protection in Thailand.

It should also be noted that organisations such as the World Bank and International Monetary Fund (IMF) can have a profound influence on domestic policy making, as countries which rely on these institutions for financial assistance must comply with the conditions attached by the institutions when they grant the loans. These may include conditions relating to environmental protection. In addition, the World Bank and the

IMF are increasingly recognising that good governance is essential to ensure successful and sustainable development. Thus, in promoting transparency and accountability in government, together with the enhancement of the rule of law and the elimination of corruption, these institutions may assist in creating the political and social conditions that are also vital, as discussed earlier, for the creation of an effective environmental system.

These international institutions are not neutral, and their actions may sometimes have a harmful effect on the Thai people. Nevertheless, it is possible that the activities of these institutions, and the existence of international standards, can provide local actors concerned with environmental reform with a means of seeking remedies at the international, rather than purely local levels. As this chapter suggests, all the international pressures mentioned above have a strong potential to help revitalise Thai environmental regulation in addition to the domestic approaches discussed in Chapter 6.

D. Conclusion

Chapter 8 concludes the main arguments of the thesis by summarising the history of environmental regulation in Thailand; the emergence of the 'big bang' reforms; the aftermath of the reforms, and the causes of the failure of the reforms discussed in Chapters 1 through 5. It also sums up the measures proposed in Chapters 6 and 7 to revitalise the effectiveness of the reformed regulation, and demonstrating how the success of such measures is likely to be substantially enhanced if they are implemented together in complementary combinations.

It also emphasises that the environment transcends both disciplines and boundaries and that environmental reform must be considered in the context of social, political, cultural and economic factors. Thus, environmental protection requires not only the formulation of a comprehensive and well thought out legal framework, but a number of other reforms which must occur at the social level. Thus, for example, education is crucial in supporting the system as a whole. And good governance and the elimination of corruption are essential, not only for the creation of a better political system overall, but for environmental protection in particular.

Equally, Chapter 8 emphasises that traditional ideas of enforcement and compliance must be extended to include innovative techniques such as self regulation. The regulatory system, furthermore, must be sensitive to the needs of those parties most affected by regulatory schemes. It should provide opportunities for their participation at all levels, including standard setting, monitoring, reporting and enforcement.

Finally, this thesis suggests that environmental protection will only be effective if action is taken at a number of different levels which all complement each other. The absence of one element from the combination may fatally undermine the project as a whole.

Developing effective environmental solutions, or designing appropriate environmental strategies and forms of regulation, will not be easy. On the contrary, the pervasiveness of environmental problems in Thailand, coupled with the deep-seated nature of some of Thailand's cultural and economic problems, means that improving the environmental situation in Thailand by means of regulation is a major challenge. Nevertheless, it is hoped that the analysis, and the proposals for reform offered in this thesis will at least make a contribution to that most important of social goals.

Chapter 2

The 'Big Bang' and Before: A History of Environmental Regulation in Thailand

This chapter provides a very brief survey of the early environmental regulation in Thailand followed by a more detailed description of the major environmental law reform: the 'big bang' of 1992. Such a description is necessary as a precursor to the later analysis of the limitations of those reforms (Chapter 3) and of the serious cultural impediments to their success (Chapters 4 and 5). Only after completing this preliminary analysis are we in a position to embark upon the main sections of the thesis: an exploration of how best to redesign environmental regulation to achieve its social policy goals, taking into account Thailand's particular environmental law and cultural context.

I. The early years

Laws and regulations involving environmental protection have existed in Thailand for nearly a century.[1] For example, the *Canal Maintenance Act,* which prohibits any person from throwing trash, dust or waste into canals or connected waterways, was enacted in 1902. Another example is the 1913 *Navigation in the Thai Territory Act*, which prohibits any person from dumping stones, wastes, oil or chemicals into the rivers, canals, swamps, reservoirs, lakes, or seas.

However, not until the 1970s did Thailand introduce the first comprehensive law dealing with environmental issues directly: the *Enhancement and Conservation of the National Environmental Quality Act*, which was passed in 1975.[2]

What was the driving force for an emergence of the first comprehensive environmental regulation in Thailand? Back in the 1960s, the country began the process of becoming one of the Newly Industrialised Countries (NICs) thus attempting to transform its

[1] See the United Nations, *Transnational Corporation and Environmental Management in Selected Asian and Pacific Developing Countries*, ESCAP/UNTCT Publication Series B, No. 13, Economic and Social Commission for Asia and the Pacific, Bangkok, at 204.

[2] Eugene Clark and Suwit Laohasiriwong, 'Thailand's Quest for Sustainable Development', *The Australian Journal of Natural Resources Law and Policy*, Vol. 3 No. 1, 1996, at 68.

economic base from agriculture to industry.[3] As part of this process, Thailand in 1961 instituted the first Social and Economic Development Plan (1961-1966) to serve as a policy framework for the country's development.[4] Not surprisingly, the plan emphasised expansion of manufacture as a core mechanism to boost the country's economic development. Economic growth continued to be the focal point of the next several plans.[5] However, extensive industrial development also brought with it environmental problems, including air and water pollution.

By the time of the third Social and Economic Development Plan (1972-1976), the environmental situation in Thailand had become critical, owing to extensive industrial development without appropriate planning. But it was a specific event (against the backdrop of increasing general awareness of the severity of the environmental problem) which precipitated the promulgation of the first comprehensive environmental regulation. A number of sugarcane refinery plants along the Mae Klong river, one of the major waterways in the western part of Thailand, discharged large quantities of untreated wastewater into the river. The pollution caused severe deterioration to the river's ecosystem, as well as the death of tens of thousands of fish.[6] So great was the pollution, and so visible and damaging its impact, that those who suffered from its effects, along with environmental activists, pressured the Thai government to take a more active role in addressing the degradation of natural resources and the environment.[7]

Studies suggest that the other driving force for the enactment of the first comprehensive environmental law in Thailand came from international pressures. In response to the growing global environmental threat, the United Nations held the Conference on the Human Environment at Stockholm in 1972. Importantly, participating countries adopted the Declaration of the Conference of Human Environment (better known as the

[3] Theodore Panayotou, 'Climate Change Negotiations From the Perspective of Newly Industrialization Countries: The Case of Thailand', *Harvard Journal of World Affairs*, Summer 1992, at 117.
[4] Damrongsak Chindakul, 'City Development and the Extension of Prosperity to the Provinces', *State of the Thai Environment 1995*, at 294.
[5] Amnat Wongbandit, 'Thai Environmental Law and the Protection of Global Environment', A Paper Presented at the Seventh General Assembly and Conference Workshop, ASEAN Law Association, 1995, at 62.
[6] Sunee Mallikamarl, *Environmental Law Enforcement*, 1998, at 8-9.
[7] John Baker, *Formation, Maintenance, and Operation of Environmental NGOs in Thailand*, Ph D thesis, Northern Illinois University, 1995, at 160-1.

Stockholm Declaration), urging every country to ensure that any activities undertaken within its territory would not cause damaging consequences to other countries.[8]

In response to both the domestic and international pressures mentioned above, Thailand passed the *Enhancement and Conservation of the National Environmental Quality Act* in 1975 (hereinafter the 1975 *Enhancement Act*).[9] Perhaps surprisingly, the 1975 Act dealt very little with tackling environmental problems directly. Rather, it merely focused on institutionalising government bodies.

To explain why this situation occurred, it is necessary to note that before the emergence of the1975 *Enhancement Act*, there was no government agency directly involved in dealing with environmental issues. Surprisingly, it was the National Economic and Social Development Board (NESDB) whose top priority was to oversee the Social and Economic Development Plans, which focused on economic growth by means of industrial manufacture as discussed above, who gave advice to the government in terms of environmental issues.[10]

Realising the urgency of setting up a government body whose prime responsibility was to improve Thailand's environmental situation, the government enacted the 1975 *Enhancement Act* although it was not ready to introduce any legal provisions which could help protect the environment.[11] For this reason, it set up the National Environment Board (NEB), and authorised the Board to render advice to other government agencies in relation to environmental issues. The Act also founded the Office of the National Environment Board (ONEB) as the government body responsible for providing administrative support to the Board.[12]

But as these institutional mechanisms in themselves did not substantially alleviate the environmental problems (which indeed continued to increase), the Act was amended in 1978 and 1979. Yet the problems of natural resources and environmental degradation

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[8] Report on the U.N. Conference on the Human Environment, Stockholm, 1972, U.N.Doc. A/CONF/48/14/Riv. 1, cited in Alan E. Boyle 'Environment and Development', *Third World Legal Studies*, 1993, at 96-7.

[9] Eugene Clark and Suwit Laohasiriwong, , 'Thailand's Quest for Sustainable Development', at 68. See also Sunee Mallikamarl, *Environmental Law Enforcement*, 1998, at 8-9.

[10] Panat Tasneeyanond, 'The 1992 Enhancement of the National Environmental Quality Act', *Chulalongkorn Environmental Law Journal*, January 1995, at 83.

[11] Ibid.

[12] Ibid.

became worse despite these amendments of the Act. How did this happen? To provide a clear answer, it is important to examine the amendments in each year respectively. Although the 1978 amendment introduced some innovative measures adopted from industrialised countries (including the establishment of environmental quality standards; the introduction of legal procedures for bringing Environmental Impact Assessment (EIA) into play in the case of particular projects or activities; and empowering the prime minister to make an absolute order to any relevant persons or agencies to resolve any emergency problems related to the environment)[13] problems arose at the stage of implementation. This was because the role of the NEB was still limited to an advisory agency as discussed above, thus lacking legal binding powers.[14] As a result, the standards issued by the NEB were often opposed by implementing agencies. For example, the Royal Police Department did not enforce the standards on carbon monoxide, while the Ministry of Interior did not enforce the standards on community wastewater.[15]

As for the 1979 amendment, it should be noted that this amendment merely dealt with the transfer of the ONEB from the Office of the Prime Minister to the Ministry of Science, Technology, and Energy. Obviously, such transfer was not sufficient to help improve the environmental situation.[16]

Unsurprisingly, the absence of effective environmental regulations caused a series of circumstances and events, including a fatal flood in the southern part of the country and pressures from NGOs, which in turn led to pressure for government action to tackle environmental problems more seriously. As Mr Panat Tasneeyanond, the main drafter of the 1992 *Enhancement Act*, suggested in my fieldwork interview:

> The reason why the 1975 *Enhancement Act* was reformed was because the government was not satisfied with environmental situation at the time. This was in part because there was a huge and immediate flood in the southern part of the country in 1988 as a result of deforestation. Many people were killed and properties were damaged. As a result of this fatal incident, many NGOs put a lot of pressures on the government to improve the ailing situation.[17]

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[13] Ibid, at 83-5.
[14] Amnat Wongbandit, 'Thai Environmental Law and the Protection of Global Environment', at 65.
[15] Panat Tasneeyanond, 'The 1992 Enhancement of the National Environmental Quality Act', at 83-4.
[16] Ibid, at 88.
[17] The interview took place on 5 January 1997.

However, it was not until 1992 that an opportunity for further reform arose. As we shall see later in this thesis, lack of political will has been one of the major obstacles to regulatory success in Thailand. It is necessary to understand that before 1992, the majority of incumbent politicians still prioritised industrialisation as a means to make Thailand become one of the NICs, thus causing the issue of reform to be neglected.

But how was the reform successful in 1992, given the lack of political will? Ironically, the 'big bang' reform did not occur through a political channel. Rather, it was indebted to a *coup d'etat*. In 1991, many corruption scandals involving members of the government of the late General Chatichai Choonhavan led to the *coup d'etat* undertaken by the National Peace Keeping Council (NPKC), members of which were high-ranking military. The NPKC then appointed Mr Anand Panyarachoon, a diplomat-turned-businessman, as the prime minister.

In environmental terms, Thailand was fortunate at the time as prime minister Anand was very keen on environmental issues.[18] He therefore did not hesitate to translate the desire for reform which had existed for many years into action, by fully supporting the reform. Yet the Anand government did not initially intend to replace the 1975 *Enhancement Act* with the 1992 *Enhancement Act*. Rather, it contemplated the improvement of the former. However, the government found that it was more complex to amend the existing law than to enact a new one, and it eventually promulgated the 1992 *Enhancement Act*, which superseded the 1975 one.[19]

It is also necessary to understand that the 1992 environmental law reform was not limited to the *Enhancement Act* only. Indeed, the Anand government simultaneously revamped many other laws related to the environment. These included the 1992 *Factory Act*, the 1992 *Public Health Act,* and the 1992 *Maintenance of Public Cleanliness Act.*[20]

[18] Douglas Tookey, 'Southeast Asian Environmentalism at its Crossroads: Learning Lessons from Thailand's Eclectic Approach to Environmental Law and Policy', *The Georgetown International Environmental Law Review*, Vol.11, 1999, at 314.
[19] Panat Tasneeyanond, 'The 1992 Enhancement of the National Environmental Quality Act', at 87.
[20] See Sunee Mallikamarl, *Environmental Law Enforcement*, 1998, at 13.

II. The 'Big Bang' Reform of 1992

The 1992 Reforms were substantial and involved a myriad of innovative measures which, taken together, have earned the title of the 'big bang' reforms. The various aspects of these reforms, which form the basis of Thai environmental law today, are examined in more detail in the remainder of this chapter.

A. Institutional reorganisation

To maximise the government's performance in addressing a complex issue like environmental problems, the Office of the National Environment Board (ONEB), a unit within the Ministry of Science, Technology and Energy, was upgraded to the Office of Environmental Policy and Planning. Also importantly, as environmental issues moved higher on the government's agenda, the main tasks of the Ministry of Science, Technology and Energy, which had previously been limited to science and technology matters, were expanded to those related to the environment. Accordingly the name of the Ministry of Science, Technology and Energy was changed to the Ministry of Science, Technology and Environment (MOSTE).[21]

Simultaneously, two new departments tailored to deal with environmental issues were also established within MOSTE: the Pollution Control Department, and the Department of Environmental Quality Promotion.[22] Among these three environmental issues-related agencies, the Office of the Environmental Policy and Planning focuses on natural resources and environmental management, and urban planning; the Pollution Control Department mainly deals with air, water, and noise quality, and hazardous substances and waste management; and the Department of Environmental Quality Promotion largely deals with public education and environmental research and training.[23]

The 1992 *Enhancement Act* has upgraded the NEB to sub-cabinet status. It now consists of the Prime Minister as the Chairman, the deputy Prime Minister designated by the

[21] Kasem Snidvongs, 'Shaping Public Policy on the Environment', *TEI Quarterly Environment Journal*, Vol.3 No. 1, January-March 1995, at 42.
[22] Ibid.
[23] Douglas Tookey, 'Southeast Asian Environmentalism at its Crossroads: Learning Lessons from Thailand's Eclectic Approach to Environmental Law and Policy', at 311-2.

Prime Minister as the first Vice-Chairman; the Minister of Science, Technology and Environment as the second Vice-Chairman; and as members *ex officio*, the Ministers of Defence, Finance, Agriculture and Cooperatives, Transport and Communications, Interior, Education, Public Health, and Industry, the Secretary-General of the Board of Investment; and the Director of the Bureau of Budget. Also, not more than eight persons qualified in environmental matters are members. Among these, no less than half must be representatives from the private sector. The last member of the board is the Permanent Secretary of the Ministry of Science, Technology and Environment.[24] The NEB is now equipped with powerful authority to ensure the efficiency of the 1992 *Enhancement Act*, including the power to prescribe environmental quality standards, to approve environmental quality management plans, and to announce the pollution control areas.[25]

Given that the NEB members are high-ranking officials from various government agencies, including the Prime Minister as the Chairman, there is good reason to believe that environmental problems in Thailand will now receive high attention from the agencies concerned. As the late Mr Athorn Supapodok, the former NEB's Secretary-General, put it in the interview with *Thammasat Law Journal*:

> *Thammasat Law Journal*: We assume that having the Prime Minister as the Chairman of the NEB (under the 1992 *Enhancement Act*) is for the long-term interest, as the enforcement will be more effective.
>
> Mr Athorn: Probably, and the Board members might not be absent from the meetings because they feel considerate to the Prime Minister.[26]

Further discussion as to whether the presence of the Prime Minister as the NEB's Chairman helps revitalise the 1992 *Enhancement Act* will be provided in the next chapters.

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[24] Panat Tasneeyanond, 'Summary of the evolution and essences of the 1992 Enhancement and Conservation of the National Environmental Quality Act', A pamphlet, year of publication unknown, at 5.
[25] Douglas Tookey, 'Southeast Asian Environmentalism at its Crossroads: Learning Lessons from Thailand's Eclectic Approach to Environmental Law and Policy', at 314.
[26] Thammasat Law Journal's Board of Editors, 'Special Interview with Mr Athorn Supapodok, Secretary-General to the National Environment Board', *Thammasat Law Journal*, Vol. 21 No.2, June 1991, at 163.

B. The role of NGOs and the right to know

Studies show that environmental NGOs made their debut in Thailand in the 1950s when a group of poachers-turned-conservationists formed the Association for the Conservation of Wildlife (ACW), the first Thai conservation group.[27] However, it was not until 1992 that environmental NGOs were formally recognised under the law. Such recognition is not limited to local NGOs but also applies to overseas organisations. This is evident from the 1992 *Enhancement Act* which allows any NGO holding the status of a juristic person under the Thai or foreign law, and whose activities are directly involved in environmental protection or natural resource conservation, to apply for registration as an NGO for environmental protection and natural resource conservation.[28]

What benefits do NGOs get from registration? The 1992 *Enhancement Act* grants a registered NGO certain privileges, including the right to receive assistance and support on some activities from the government. These activities include study or research with regard to protection of the environment or conservation of natural resources; and any projects or activities aiming at helping people in particular areas.[29]

A registered NGO is also entitled to nominate candidates to be appointed as members on the National Environment Board. Currently, there are four NGO representatives appointed as members apart from those who are drawn from eleven incumbent politicians, four permanent government officials, and four representatives from the private sector other than environmental NGOs.[30]

NGOs and public pressure is one of the key factors in galvanising the government to protect the environment, as the examples cited earlier demonstrate. But what guarantees the continuation and efficiency of NGO and public involvement? Recognising the importance of empowering the public through information disclosure, the 1992 *Enhancement Act* allows an individual to have the right to access any data and

[27] John Baker, *Formation, Maintenance, and Operation of Environmental NGOs in Thailand*, A Ph D thesis, Northern Illinois University, 1995, at 138-41.
[28] See the 1992 *Enhancement Act*, Section 7.
[29] Douglas Tookey, 'Southeast Asian Environmentalism at its Crossroads: Learning Lessons from Thailand's Eclectic Approach to Environmental Law and Policy', at 314.
[30] See the 1992 *Enhancement Act*, Section 12.

information in relation to environmental promotion and conservation from the government[31].

Indeed, legislation giving the public access to environmental information is not new. Rather, it has been in place in many countries for a number of years. Such legislation is commonly referred to as "community right to know" (CRTK).[32] Although the laws related to community right to know apply to both the disclosure of environmental information from the government to the public, and that from industry to the public, the 1992 *Enhancement Act* allows the public to access to such information directly from the government only. For this reason, the public can access environmental information from industry through government, as industry is required to provide the information to the government. For example, the Act requires the owner or possessor of the point source of pollution equipped with a polluted air system, wastewater treatment system, or waste disposal system to provide a report showing the functioning outcome of the system, as well as to submit it to the local authorities where the point source is located at least once a month.[33]

But how can the public have access to the information related to industry's environmental performance from the Thai government? So far, the government has used the disclosure of such information as a supplementary tool to help regulatory enforcement. For example, the Bangkok Metropolitan Administration (BMA) now releases information as to non-compliance of polluting firms to the media. In such disclosure all details of each firm, as well as its environmental performance, are publicly exposed.[34]

As public participation and NGO involvement in particular, are gaining momentum in environmental protection, the right to know is indispensable in providing relevant and up-to-date information so the public can take part in environmental cases. However, such entitlement does not apply to any secrets pertaining to national security, or secrets pertaining to personal privacy, property rights or rights in trade or activities of any person which are duly protected by law.[35]

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[31] See the 1992 *Enhancement Act*, Section 6.
[32] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, 1998, at 63-5.
[33] See the 1992 *Enhancement Act*, Section 80.
[34] Poona Antaseeda, 'City to act against plants dumping waste into canals', *Bangkok Post*, 17 June 1997.
[35] Ibid.

C. Polluter Pays Principle

The polluter pays principle made its debut at the international level under the recommendation of the Council of the Organization for Economic Cooperation and Development (OECD). The OECD took the conventional economic view that pollution arising from human activities should be treated as an externality, and suggested to its members that a polluter should bear the costs for the pollution prevention and control measures introduced by their government agencies.[36] That is, forcing enterprises to bear the costs of the pollution that they cause rather than 'externalising' (passing on) those costs to others, and the environment at large, would give enterprises the appropriate incentives to prevent pollution.

The polluter pays principle was first introduced in Thailand in the 1992 *Enhancement Act.*[37] In particular, as regards air pollution, the Act requires an owner or possessor whose point source of pollution falls into the category stated in the Government Gazette to instal or bring into operation an on-site facility for air pollution control, equipment or other instruments as determined by the pollution control official, in order to control, dispose, reduce or eliminate pollutants which may affect the air quality.[38]

As regards water pollution, the reformed Act mandates the owner or possessor whose point source of pollution falls into the categories stated in the Government Gazette to construct, instal, or bring into operation an on-site facility for wastewater treatment as determined by the pollution control official.[39] In any pollution control area, or any area where a central wastewater system has been provided by the government, the owner or possessor whose point source of pollution falls into specified categories, is required to send the wastewater emanating from his or her business operation to be treated by such central wastewater system. *In doing so, the owner or possessor must pay the specified service fees.*[40]

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[36] David Hunter, Julia Sommer and Scott Vaughan, *Concepts and Principles of International Environmental Law: An Introduction*, UNEP, 1994, at 32.
[37] Kanung Luechai, 'The New Environmental Law', *Chulalongkorn Environmental Law Journal*, January 1995, at 20-1.
[38] See the 1992 *Enhancement Act*, Section 68.
[39] See the 1992 *Enhancement Act*, Section 70.
[40] See the 1992 *Enhancement Act*, Section 71.

D. Strict Civil Liability

Strict civil liability was introduced in the 1992 *Enhancement Act* as one of the methods tailored to improve environmental quality. Before the 'big bang' reform, Thailand used conventional civil liability under tort law to provide compensation stemming from environmental harm. Studies however suggest that it was a complex and demanding task to prove that the plaintiff's injury was directly caused by the defendant's action.[41] The conventional civil liability under the tort law was therefore superseded by the strict civil liability to enhance the effectiveness of compensation claims in environmental cases.[42]

Under the strict liability regime, the defendant is liable for all injuries caused by his/her action, even without showing negligence. In other words, the plaintiff merely has to prove that it was the defendant who conducted the damaging action, regardless of his/her intention or negligence. If the court is convinced of such a proof, it will award compensation to the plaintiff.[43] This approach makes it considerably easier for the plaintiff to succeed and in so doing, holds out the promise of providing an additional mechanism to facilitate environmental protection.

E. Incentive Measures

The law reform in 1992 introduced a number of incentive measures to help the newly reformed law work effectively.[44] First, the owner or possessor of any point source of pollution who is required by law to instal an on-site facility for treatment of polluted air or wastewater is entitled to apply for government assistance regarding import duties on imported machinery, equipment, tools, or any materials which are necessary but not available in Thailand. Also, the owner or possessor may seek permission to bring

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[41] Donald Dewees, 'Tort Law and the Deterrence of Environmental Pollution', in T.H. Tietenberg (ed), *Innovation in Environmental Policy*, 1992, at 151. See also Chatchom Akapin, Enforcement and Compliance Priorities, a presentation given to the Bangkok Conference, Environmental Priorities in Southeast Asian Nations, organised by Standing Committee on Environmental Law, American Bar Association. This presentation was later published in Sarah McCaffrey and Elissa Lichtenstein (eds), *Environmental Priorities in Southeast Asian Nations*, 1997, at 136.

[42] Sunee Mallikamarl, *Environmental Law Enforcement*, 1996, at 102.

[43] Ibid. For the exact meaning of strict liability, Steven H. Gifis defines it as "Liability without fault. Often in tort law, one who engages in an activity that has an inherent risk of injury is liable for all injuries proximately caused by his or her enterprise, even without a showing of negligence". See Steven H. Gifis, 1991, *Law Dictionary* (Third Edition), at 468 for more details.

[44] Chatchom Akapin, 'Law Enforcement: An Issue to be Improved for the Thai Environmental Protection', *Dullapaha*, 1996, at 96.

foreign experts into the country to instal, control, or operate the facility providing such an expert is not available in Thailand, and request income tax exemption for the foreign experts.[45]

The second incentive is the creation of an environmental fund for tackling environmental problems which require a substantial amount of financial resources.[46] It should be noted that this fund is not totally generated from the government budget. Rather, it derives from various sources, including the fuel oil fund, service fees and fines collected under this Act. The purposes of this fund include to grant a loan to any person who is required by law to instal an on-site facility for treatment of polluted air and wastewater generated by his or her activities, and to grant a loan to a local administration or state enterprise to acquire air pollution and wastewater treatment systems.[47]

The third incentive is stipulated in the 1992 *Maintenance of Public Cleanliness Act*. This incentive is aimed at harnessing public power to help strengthen the efficiency of enforcement. Under this Act, an individual who has witnessed any action criminalised under this legislation is allowed to report to the government authority. In the event that the offender is ordered to pay a fine, the individual who has made the report will be awarded half the amount of the fine.[48]

Like the polluter pays principle, incentive measures under the 'big bang' reform were adopted from other countries both at international and domestic levels. As Mr Panat Tasneeyanond, the prime drafter of the 1992 *Enhancement Act* put it:

> The incentive measures were also promulgated in this Act (the 1992 *Enhancement Act*). We adopted this idea from the Stockholm Declaration and the Japanese Environmental Law.[49]

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[45] See the 1992 *Enhancement Act*, Section 94.
[46] Phaichitr Uathavikul, 'Managing the Environment', *Thailand: King Bhumibol Adulyadej, the Golden Jubilee 1946-1996*, 1997, at 217.
[47] See the 1992 *Enhancement Act*, Sections 22, 23.
[48] See Section 48, and 51 of the 1992 *Maintenance of Public and Cleanliness Act*. See also Sunee Mallikamarl, *Environmental Law Enforcement*, 1998, at 77.
[49] The interview was conducted on 5 January 1997.

F. Designation of Pollution Control Area

The 1992 *Enhancement Act* empowers the NEB to designate an area, the pollution in which tends to become harmful to the public health or to cause adverse effects to the environment, as a pollution control area.[50]

How does designation as a pollution control area help improve the environment? Under the reformed Act, a local authority in charge of an area which has been designated as a pollution control area has to submit an action plan for the reduction and eradication of pollution to the Provincial Governor. The plan must provide details about pollution, including its sources, sizes and categories of pollution sources, magnitude of pollution hazard, as well as suggestions for pollution abatement. The Provincial Governor will then incorporate such an action plan into the environmental quality management plan at the provincial level as required by law in order to decentralise environmental planning to local government agencies, details of which are discussed below.[51]

G. Decentralisation of Environmental Planning

The reform also aimed at allocating power to local authorities with regard to environmental planning.[52] To achieve this goal, the 1992 *Enhancement Act* requires the Provincial Governor whose locality is designated as a pollution control area to formulate an action plan for environmental quality management, and then submit the plan to the NEB for approval.[53] This is to allow local authorities to have a say about environmental planning in their areas.[54]

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[50] Amnat Wongbandit, 'Thai Environmental Law and the Protection of Global Environment',at 68-9.
[51] Ibid.
[52] Paul Clements-Hunt, 'Thailand's Status as an Emerging Environmental Market: A Comparative Analysis of Six Asian Countries', A Paper Presented at the Conference: Industry & Environment, 29 May 1995, at Queen Sirikit National Convention Centre, Bangkok.
[53] See the 1992 *Enhancement Act*, Sections 35-38.
[54] Kasem Snidvongs, 'Shaping Public Policy on the Environment' at 42. See also the 1992 *Enhancement Act*, Section 37.

Chapter 3

The Aftermath of the 'Big Bang' Reform: A Story of Failure

Although a number of innovative measures have been introduced in the reform of Thai environmental regulation discussed in the previous chapter, a central question remains: has the reform delivered improved environmental outcomes? To find the answer, we examine the current environmental *status quo* in Thailand as it relates to air and water pollution, the central concerns of this thesis. We begin with an overview of the severity of air and water pollution problems in Thailand in the years subsequent to the 'big bang' reform. We then provide a number of case studies of air and water pollution, which illustrate much more graphically the nature and the severity of the problems that remain despite the 'big bang'.

I. Overview of the situation

According to the Towards Ecological Recovery and Regional Alliances (TERRA), one of the prominent environmental NGOs in Thailand, the most serious pollution problems in the country are from water pollution in rivers, waterways and coastal ecosystems, followed by air and noise pollution.[1]

We start our investigation by exploring the situation of air pollution. At present, the problem of air pollution in Thailand is still critical.[2] In Bangkok, the major point sources of air pollution are vehicles and building constructions.[3] Recently, studies conducted by the Pollution Control Department (PCD) found that small particles, which

[1] Douglas Tookey, 'Southeast Asian Environmentalism at its Crossroads: Learning Lessons from Thailand's Eclectic Approach to Environmental Law and Policy' *The Georgetown International Environmental Law Review*, Vol.11, 1999,at 310.
[2] Aphaluck Bhatiasevi, 'Pollution critical in Bangkok', *Bangkok Post*, 25 October 1996.
[3] Interview with Dr Supat Wangwongwattana, director of the PCD's Air Quality Management Division on 27 December 1996.

were smaller than 10 microns, are particularly hazardous to health and in seven out of nine major cities exceeded the standard.[4] This problem is even worse in Bangkok, where it was found that the small particles were 2.6 times the maximum allowable limit. The studies also found that the concentration of suspended particulate matters (SPM) in Bangkok was at almost 3.5 times the permissible level.[5] Furthermore, carbon monoxide in the capital city has increased constantly, and almost reached the permissible limit.[6]

As a result of the excessive amount of pollution in Bangkok, it was ranked in the top fifteen most polluted cities in the world.[7] Recently, research conducted by the World Health Organization (WHO) revealed that the air quality in Bangkok was extremely critical. The Queen of Thailand suggested to Mr Banharn Silpa-archa, the former Prime Minister of Thailand:

> The experts of the World Health Organization told me that their research on environmental situation, particularly air pollution in Bangkok had found that the air quality in Bangkok was not at the safety level. As a consequence, they suggested the youth below 12 years of age not to travel to Thailand because their immunity were very low. I hereby urge the government to solve this problem seriously, quickly, and constantly.[8]

Not surprisingly, this situation has caused adverse effects to those who in their daily life are exposed to the polluted air of Bangkok, such as the traffic police. A shocking finding from the survey conducted by the Police Hospital is that 43 per cent of the traffic police receiving medical checkups suffered from respiratory problems and hearing defects.[9] Most importantly, air pollution can lead to fatal consequences, for example from lung cancer as a consequence of directing traffic on the busiest streets in Bangkok.[10]

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[4] Environmental Research Institute, Chulalongkorn University (ERIC), 'New Dimension for Environmental Management with Economic Instruments', A paper submitted to the New Dimension for Environmental Management with Economic Instruments seminar held on 28 May 1998, at Environmental Research Institute, Chulalongkorn University, at 2-1.

[5] Phaichitr Uathavikul, 'Managing the Environment', *Thailand: King Bhumibol Adulyadej The Golden Jubilee 1946-1996*, 1997, at 215.

[6] Ibid.

[7] John Baker, *Formation, Maintenance, and Operation of Environmental NGOs in Thailand*, Ph D thesis, Department of Political Science, Northern Illinois University, 1995, at 154-5.

[8] House of Senate's Environmental Committee, *Report on the Management of Pollution, Natural Resources and the Environment for Practical Effectiveness: Case Study 7: Problem of Dust in Bangkok and Suburban Areas*, 1997, at 27.

[9] Ibid, at 155-6.

[10] 'Bangkok police officer losing toughest battle', *The Nation*, 15 July 1999.

While traffic and construction are responsible for air pollution in Bangkok, industry is the major source of air pollution in the province generally. This does not necessarily mean that industry in Bangkok itself has performed well in environmental management. Rather, it is simply that the Thai government does not currently allow new factories, especially those equipped with chimneys, to be located in Bangkok Metropolitan.[11] Across the province generally, evidence shows that air pollution emanating from industry consistently causes damaging consequences to people in the vicinity of industrial plants. For example, many residents, including students and teachers in the schools near quarries and rock-grinding factories in Saraburi province suffer from respiratory problems, including silicosis, and other kinds of lung disease.[12]

Water quality too, has seriously deteriorated in all major rivers and natural waterways of Thailand, according to a series of studies.[13] Interestingly, a recent study on water quality in the lower Chao Phraya River, the main river of the country, conducted by the Harbour Department, found that although garbage has decreased dramatically, water quality in the river remains poor as the average dissolved oxygen is less than one milligram per litre, below the standard of two milligrams per litre.[14]

Water pollution generated from chemical industry has posed a particularly serious threat to Thailand's environment. According to Professor Piamsak Manasveta, director of the Aquatic Resources Research Institute, Chulalongkorn University:

> In the sea, pollutants are generated from both households and industry, especially factories which use chemicals in their manufacturing process. These factories sometimes discharge untreated wastewater containing chemicals and heavy metals into seawaters in the Gulf of Thailand. We will soon have the fishery problem as our fish are dying from high

[11] Interview with Mr Vira Mavichak, deputy Director-General, the Department of Industrial Work on 26 December 1996.
[12] Anjira Assavanonda, 'Quarry dust damages young lungs', *Bangkok Post*, 22 June 1998.
[13] Office of Environmental Policy and Planning, Ministry of Science, Technology and Environment, *Report on Environmental Situation 1995-1996*, 1997, at 115.
[14] 'No improvement in river water quality', *Bangkok Post*, 28 June 1998.

concentration of heavy metals in the seawaters.[15]

II. Selected cases of air and water pollution

To provide a deeper insight as to how effective the 'big bang' has been, it is essential to investigate the state of air and water pollution in Thailand since the 1992 reform of environmental regulation, as well as how the stakeholders concerned have reacted. To do so, we explore some case studies. With regard to the issue of air pollution, we will discuss the industrial pollution at Mab Ta Phut, one of the government industrial estates, and the air pollution generated from the government's power plant. As for water pollution, the cases of Phoenix Pulp and Paper, and the Klity Mine will be discussed.

A. Air Pollution

1. Mab Ta Phut case

Many students and teachers in Mab Ta Phut Pan Phittayakan School[16], located near an industrial site of the Industrial Estate Authority of Thailand (IEAT)[17], and nearby communities, have been suffering from the stench emitted by the industrial estate for years. In June 1997, two students were admitted to the local hospital because the high content of toxic substances in their blood caused headache and stomach ache.[18]

According to the Ministry of Public Health's investigation, the patients suffered from chemicals which had been involved in the manufacturing process of the factories in the industrial estate since 1996.[19] The agency also revealed that the ambient inspection made in March 1997 found that there was 13.75 ppm. of sulphur dioxide in a period of fifteen minutes while only 0. 3 ppm. of the substance is allowed in ambience in a period

[15] The interview was conducted on 9 January 1997.

[16] Mab Ta Phut is a district of Rayong where one of IEAT's sites is located.

[17] IEAT was established in 1972 under a plan to boost industrial business. Its main task is to promote industrial business. To achieve this goal, it has to persuade manufacturers to locate their plants in IEAT's sites where many facilities such as central water treatment systems, electricity, and water, are provided to support their business. Each site contains many industrial plants. Among these, Mab Ta Phut site, which is located in Rayong, serves as a base for heavy industry, including petrochemical plants.

[18] Phanomporn Chomchuen, 'Toxic Gas Problem must be dealt with as soon as possible', *Bangkok Post*, 28 June 1997.

[19] It was disclosed by Mr Sarote Iemwaranand, a teacher in the school mentioned above, that after the complaints, IEAT simply sent its officials to inspect the polluting factories, but no action was taken to solve the problem. For more detail, see Phanomporn Chomchuen, Ibid.

of one hour under the announcement of the National Environmental Board.[20] Interestingly also, the inspectors from the Ministry of Public Health smelt the stench during their investigation.[21]

After the incident, all 982 students and 40 teachers were moved to share facilities with Rayong Witthayakhom II school, which was 10 kilometres away. However, they were forced to move back to the same old school by the lack of sufficient educational facilities.[22] Interestingly, the problem of stench has recurred. A nurse hired by the IEAT to be stationed at the school, disclosed that there were around 70 students visiting the nursing room each day during the second week of June 1998.[23]

More recently, a sub-committee on Industrial Environment Management Coordination set up by the government to find solutions to the problems reached the conclusion that a new school would need to be built in a new site, and that the polluting factories must pay for the relocation.[24] However, two major firms blamed for the air pollution problem, Star Petroleum Refining Co (SPRC), and Rayong Refinery Co (RRC) have yet to confirm that they are willing to foot the bill.[25]

Who is to blame for the incident? Of course, the firms which released a great deal of pollutants including sulphur dioxide and hydrocarbons into the atmosphere must be responsible for their non-compliance. However, evidence shows that the IEAT also failed to discharge its regulatory responsibilities. The IEAT has the power to control pollutants from plants located in its estates but failed to perform this role.[26] One report quoted Mr Saksit Tredech, secretary-general of the Office of Environmental Policy and Planning at the time, as saying "IEAT never monitored those factories whether they implement pollution preventive measures until the severe air pollution took its toll on people's health".[27]

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[20] Under the 1992 *Enhancement Act*, the National Environmental Board is empowered to issue an announcement, stipulating any standards for the purpose of protecting the environment.
[21] 'Toxic Gas in Mab Ta Phut', *Matichon*, 11 July 1997.
[22] Anchalee Kongrut, 'School still affected by industrial stench', *Bangkok Post*, 15 June 1998.
[23] Ibid.
[24] Uamdao Noikorn, 'Polluters pay for school's relocation', *Bangkok Post*, 12 June 1998.
[25] Anchalee Kongrut, 'School still affected by industrial stench', 15 June 1998.
[26] *Post* reporters, 'IEAT taken to task over pollution', *Bangkok Post*, 29 November 1997.
[27] Ibid.

To find out first-hand information in this regard, I interviewed Mr Yutthana Putchong, a Map Ta Phut community leader during my fieldwork. In his view:

> IEAT has never paid enough attention to environmental issues. Evidence is seen from the fact that the pollution problem has existed for about two years. After IEAT had ignored our outcry, we petitioned many authorities concerned in the province. Again, there was no response from them.[28]

Part of the problem is that IEAT has a double role to play: as a promoter of industrial investment; and as an enforcer of environmental regulations over plants in the estates.[29] It is however apparent that the agency prioritises the former role as it fears that enforcing the regulations will jeopardise private investment.[30] So far, no legal action has been taken against polluting factories[31], demonstrating that the conflict of interest has resulted in economic growth being favoured and environmental quality being sacrificed.

2. Mae Moh case

In October 1992, a few months after the 1992 *Enhancement Act* came to effect (in June 1992), hundreds of villagers in Mae Moh, a district in Lampang, a northern province of Thailand in which power plants of the Electricity Generation Authority of Thailand (EGAT) are located, had to be hospitalised after exposure to toxic fumes emitted by a lignite-fired power plant . EGAT blamed the air pollution on excessive sulphur dioxide. Mr Phisan Moolasartsathorn, the Minister of Science, Technology, and Environment at the time, informed the public that EGAT would pay compensation to those injured, and at the same time the power plant would not continue to operate unless pollution control measures were instaled under the supervision of his Ministry.[32]

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[28] The interview took place on 6 February 1998.

[29] Panat Tasneeyanond, *Summary on the 1992 Enhancement and Conservation of the National Environmental Quality Act*, Year of Publication unknown, at 17.

[30] *Post* reporters, 'IEAT taken to task over pollution', Notably, when a Mab Ta Phut community leader demanded that the IEAT get tough on Star Petroleum Refining Co (SPRC), and Rayong Refinery Co (RRC) as those responsible for the pollution incident if they could not manage to rectify the problem, Dr Somchet Thinnapong, the IEAT Governor at the time argued that closing down polluting factories could jeopardise the country's investment atmosphere as a whole. For further details, see Anchalee Kongrut, *Bangkok Post*, 15 June 1998.

[31] Kanittha Inchukul, 'Polluting factories escape prosecution', *Bangkok Post*, 16 July 1997.

[32] John Baker, *Formation, Maintenance, and Operation of Environmental NGOs in Thailand*, Ph D thesis, Department of Political Science, Northern Illinois University, 1995, at 152-3.

Astonishingly, the incident recurred two weeks later when the plant continued to operate at full power despite the Minister's promises. As a result, several hundreds more villagers fell sick, 8 cows and 20 buffaloes died, and many agricultural products were damaged.[33] Against this background, EGAT paid the sum of 8.14 million baht to villagers as compensation, as well as spending 7.02 billion baht on the instalation of desulfurising equipment at four out of its eleven plants to decrease air pollution at Mae Moh.[34] The case ended up with a compromise which included payment of compensation, and an agreement to instal dust scrubbers at power plants and to lengthen the power plants' chimneys.[35]

Despite such a compromise, the tragedy recurred in 1996 when 20 villagers of Ban Huay Fai village in Mae Moh district died mysteriously. Although doctors of Lampang Provincial Hospital ruled that all of the dead died of heart failure, the villagers have strongly believed that their sudden deaths were caused by continuous exposure to sulphur dioxide polluted air from an EGAT power plant since the beginning of the plant's operation in 1987.[36]

Mr Somsak Jaemkrua, one of the village leaders, maintained that the reason Ban Huay Fai continues to face air pollution problems is because the village is located at the mouth of the lignite-fired power plant. For this reason, the Ban Huay Fai villagers have continuously demanded that EGAT, as well as the government, should relocate them to a safer area.[37]

However, Mr Yongkiat Pithakthon, assistant manager of EGAT's Mae Moh power plant, denied that the pollution to which the villagers were exposed was caused by the power plant operation. Instead, he alleged that it was caused by the mine dug by four private companies under EGAT concession to obtain lignite: Ban Huay Fai village is located only a kilometre away from the quarry. The assistant manager further defended EGAT by saying that EGAT has asked the four companies to deal with the dust and sulphur dioxide smell problem generated at the mine by spraying water.

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[33] Sunee Mallikamarl, *Environmental Law Enforcement*, 1997, at 126-9.
[34] John Baker, *Formation, Maintenance, and Operation of Environmental NGOs in Thailand*, at 152-3
[35] Sunee Mallikamarl, *Environmental Law Enforcement*, 1997, at 129-31.
[36] Somsak Suksai, 'Toxic fallout haunts Mae Moh villagers', *Bangkok Post*, 30 June 1997.
[37] Ibid.

In response to the villagers' demand for relocation, the government has recently proposed to set up a fact-finding committee to find out the actual cause of the fatal incident before considering the relocation. This has antagonised the villagers, as Somsak Sooksai quoted Mr Naruedol Suchartpong, another village leader, as saying:

> We disagree with the establishment of a fact-finding committee. We believe that the EGAT and the state want to buy time and are insincere about tackling the problem. It is clear that the villagers face air and noise pollution. Why must a study be made? We are dying[38].

B. Water Pollution

1. Phoenix Pulp and Paper Case

Phoenix Pulp and Paper Co Ltd (hereinafter Phoenix) is located near the Nam Phong river in Khon Kaen, one of the largest provinces in the northeast of Thailand. Since 1994, Khon Kaen residents have begun to complain that the factory released untreated wastewater into the Nam Phong river, the main waterway for many provinces in the region, thus killing tens of thousands of fish.[39] As a result, it was ordered by authorities that the company must abide by the zero-discharge rule, that is, it was not allowed to discharge any kind of water, including treated water, into waterways.

Phoenix then appealed to the Office of Environmental Policy and Planning (OEPP), asking for permission to continue releasing water. It justified its appeal on the basis that the company was in the process of improving its technology to cope with strict measures required by its environmental impact assessment study. Strikingly, the company did not wait for the OEPP's decision on its appeal. Rather, it continued to discharge water from its plants into the Nam Phong river.

In mid-1998, Phoenix's wastewater treatment system failed, resulting in the discharge of wastewater kept in the company's ponds, into the Nam Phong river. As a consequence, the Ministry of Industry issued an order to shut down Phoenix's polluting plants for 180 days to improve its wastewater treatment facility.[40] The company was

[38] Somsak Suksai, 'Villagers say no to panel idea', *Bangkok Post*, 26 June 1998.
[39] 'Phoenix Paper mill to be closed', *The Nation*, 21 July 1998.
[40] Ibid.

then allowed to open again. However, it is evident that the polluted water is still leaking from Phoenix's plant onto the bank of the Phong river. For example, Pennapa Hongthong quoted Mr Saksit Tridej, the PCD's director-general, as saying;

> To stop discharging polluted water from the factory into the Phong River through the Huay Chode swamp, the company used to recycle all the discharged water by showering a eucalyptus plantation. But the water was leaking from the plantation into the swamp and further into the river. It caused local villagers to complain that the polluted water had killed the fish in the river.[41]

Also, according to Dr Yuwaree Inna, the PCD's director of Wastewater Management Division, water pollution is repeatedly caused by Phoenix because the company closes down its wastewater treatment plant from time to time in an attempt at cost cutting.[42]

2. Klity Mine case

In April 1998, residents of the Lower Klity village situated downstream of the Klity stream in Kanchanaburi province lodged a complaint to the government that the Klity mine dumped toxic waste into the stream, causing hundreds of their livestock to die, or fall ill after drinking water from the contaminated stream.[43] The villagers themselves also suffered severe diarrhoea and dizziness, and rashes.[44]

After inspection, a Mineral Resources provincial officer found that the mine's tailings pond, which was used for storing toxic sediments, had broken, resulting in the discharge of overflow into the stream. To rectify the problem, the mine was ordered to suspend its operations. The reopening of the plant could not be conducted unless its waste water pond was improved to meet the safety standards.[45]

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[41] Pennapa Hongthong, 'Polluting company faces order to pay Bt6m for swamp rehabilitation', *The Nation*, 7 August 1999.
[42] Kamol Sukin, 'Phoenix to pay for its blunders', *The Nation*, 7 September 1999.
[43] 'Mine accused of lead contamination', *Bangkok Post*, 23 April 1998.
[44] Supawadee Susanpoolthong, 'Groups unite to block lead threat', *Bangkok Post*, 22 May 1999.
[45] Vasana Chinvarakorn and Atiya Achakulwisut, 'Lead mine shut down', *Bangkok Post*, 24 April 1998.

It was also alleged after the complain was made that the mine had been discharging lead-contaminated water without proper treatment for 30 years.[46] The Environmental Health Bureau, Ministry of Public Health carried out a health examination on villagers in Lower Klity village in early 1999. Alarmingly, the blood tests on 119 out of 150 people in the polluted area showed that they have unusually high amount of lead in their bloodstream. Among these, thirty-nine children from infancy to six years old were found to have an average 23.56 micrograms/decilitre, eight children aged 7-15 years had about 28.3 micrograms/decilitre, and seventy-two villagers aged 16 years and over had about 26.31 micrograms/decilitre of lead in their bloodstream, while a report conducted by an Occupational Health Division in 1996 showed that a normal person who did not work in a lead concentrated environment such as that of a lead mine had only about 4.92 micrograms/decilitre in his or her bloodstream.[47]

It should be noted that Klity creek has been the lifeline for Lower Klity villagers for drinking water, fishing and irrigation. Water from the creek flows into Lam Khlong Ngoo, a stream which feeds the Sri Nakarin reservoir.[48] At present, the Reservoir serves as a main source of fish for people in Kanchanaburi. However, it was also found that fish in the Sri Nakarin reservoir contained 90.5 milligrams per kilogram, which is 348 times higher than safety standards.[49]

Furthermore, given that the creek is located in the middle of Thung Yai Naresuan Wildlife Sanctuary, which has been recognised as a World Heritage Area, many are concerned that the sanctuary may lose its high status if the pollution remains.[50]

Many feel that they cannot afford to be complacent merely because the Klity Mine was shut down. For this reason, affected villagers have been demanding that the government revoke the concessions of all lead mines.[51] For example, Sanitsuda Ekachai quoted Mr Wuth Boonlert, secretary to the Forest-dwelling Ethnic Karens in Western Thailand Network, as saying:

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[46] 'Klity water still health-hazardous', *Bangkok Post*, 14 February 1999.
[47] Anchalee Kongrut, 'High level of contamination seen in Klity', *Bangkok Post*, 11 May 1999.
[48] Ibid.
[49] 'Klity water still health-hazardous', *Bangkok Post*, 14 February 1999.
[50] Supawadee Susanpoolthong, 'Groups unite to block lead threat', *Bangkok Post*, 22 May 1999.
[51] Ibid.

> Every time the villagers complain, the mine manager promises to turn over a new leaf but they never live up to their words. The only way to solve the problem once and for all is to stop the mine.[52]

Indeed, Mr Wuth's suggestion has a point. Records show that the mine has always re-opened to continue discharging toxic substances into public waterways despite occasional closures.[53] Recently, the Klity mine has appealed to the Department of Mineral Resources (DMR), a government agency overseeing mine business, to allow it to re-open its operation.[54] The DMR decision on the appeal is not available at the time of writing.

Significantly, studies show that apart from the Klity mine, there are six other lead mines in the vicinity, some of which also dumped toxic waste into the public waterways. Nevertheless, no action from the authorities has so far been taken.[55]

We conclude, both from the overview and from the case studies, that Thailand's air and water pollution problems are very serious ones, and that these have not been significantly mitigated by the 'big bang' environmental law reform of 1992. Why this is the case, is the subject of the following chapters.

[52] Sanitsuda Ekachai, 'Lead mine faces rising opposition', *Bangkok Post*, 14 July 1999.
[53] 'Klity water still health-hazardous', *Bangkok Post*, 14 February 1999.
[54] Pennapa Hongthong, 'Polluting mine seeks new start', *The Nation*, 2 July 1999.
[55] Ibid.

Chapter 4

Detailed analysis of the reasons for failure

Introduction

As we have learned from Chapter 3, the environmental situation in Thailand has not improved despite the 'big bang' reform. Before going on to consider alternative strategies for future reform, it is important to identify more clearly the reasons why the 'big bang' reforms substantially failed.

Socio-economic studies of social policy implementation suggest that there is a myriad of salient factors responsible for the success or failure of environmental regulation in many countries, including Thailand. These include the character of the law; lack of political will; the agency's task environment; size of firms; cultures; regulatory capture; and corruption. These factors and others, will be examined in Chapters 4 and 5.

The large majority of these issues will be explored in this chapter under two main headings: the character of laws and the agency's task environment. However, the issue of corruption, which is so important and so pervasive in a developing country like Thailand, will be considered separately in Chapter 5.

I. Character of Laws

Regulation is enacted to achieve many different objectives. Some laws do indeed provide a powerful and reliable mechanism to deal with particular problems, but others are merely symbolic tools for politicians to appease their electorates by attempting to show that they are doing their job: passing legislation.[1] As we will see, the character of particular laws, and these and other differences in the ways laws evolve, result in strikingly different outcomes in the effectiveness or otherwise of environmental regulation.

[1] David Parks, 'GATT and the Environment: Reconciling Liberal Trade Policies with Environmental Preservation', *UCLA International Environmental Law and Policy*, Vol. 15 No.2, 1996/97, at 165-6.

One of the greatest problems in this regard, is vague legislation. Ambiguity causes uncertainty. Because of this, vague legislation is generally undesirable. Most importantly, it could lead to regulatory failure.[2] Take the case of the 1992 *Enhancement Act*. The Act allows any individual to have access to information regarding environmental and natural resources quality. Interestingly, the word "may" is somehow included in this provision. This inclusion has caused ambiguity and led to confusion and ineffectiveness in the application of the law.

This can be illustrated by a 1993 Thai case. The Bangkok Metropolitan Administration (hereinafter BMA) granted a concession to Thanayong Co. Ltd. to construct an elevated trainline for transporting commuters in Bangkok. The construction of the railways and many stations tended to affect the public with regard to environment and scenery. In March 1994, Khunying Chodchoy Soponpanich, president of the Thai Environmental and Community Development Association, an environmental NGO, requested the Governor of BMA to disclose information on this project according to the legal provision described above. The Governor for some reason ignored her request. Consequently, Khunying Chodchoy, along with another 74 citizens jointly brought this case to the Bangkok Civil Court in March 1995.

The ambiguity of the statute became a critical issue. I interviewed Mr Warin Tiemjaras, one of the attorneys who represented the plaintiff in the case. He stated that:

> Surprisingly, the *Enhancement Act* does not include much emphasis on public participation. Although Section 6 of the Act underlies this issue, the word 'may' in this provision creates ambiguity. It turns out that the government officials have discretion to consider if they will disclose the required information.[3]

Similarly, Dr Sunee Mallikamal, associate professor and director of Environmental Law and Development Center, Chulalongkorn University's Faculty of Law suggested to me that:

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[2] Douglas Tookey, 'Southeast Asian Environmentalism at its Crossroads: Learning Lessons from Thailand 's Eclectic Approach to Environmental Law and Policy', *The Georgetown International Environmental Law Review*, Vol.11, 1999, at 331.

[3] The interview was conducted on 28 December 1996.

> Some provisions in the reformed law are vague. Examples include Section 6 of the 1992 *Enhancement Act* 1992 which contains the word "may". This creates a controversial argument if the government really has to disclose relevant information to the public.[4]

The defendants took advantage of the ambiguity described above in arguing that the controversial provision did not require government agencies to provide any data and information to anyone. Rather, it merely recognised the fundamental rights to know of the people[5] After a few trial sessions, the case ended up with a compromise: the defendants agreed to disclose such information to the public and the plaintiff withdrew the case from the court.[6]

Had the law been clearer, the plaintiff would have been able to take a much stronger position, and had they succeeded in court, this would have provided an important precedent for other environmental groups seeking to take advantage of "the right to know". But the ambiguity in the law prevented any such outcome.

To ascertain why and how this provision was included with the word "may", I interviewed Mr Panat Tasneeyanond, the drafter of the reformed *Enhancement Act* in an interview. He disclosed that:

> When I wrote the draft of this legislation , there was no such word. It was Mr Akkarathorn Julara of the Office of State Counsel who added it.[7]

However, in the interview with Dr Akkarathorn Julara, he put it:

> I had a little involvement in reviewing the 1992 *Enhancement Act*. I remembered I reviewed the draft for only one day. As for the word "may", I do not remember if I

[4] The interview was conducted on 9 January 1997.
[5] See Defendants' answer statements in the Black Case No. Por Kor 87/1995, Red Case No. Por Kor 100/1995 of the Bangkok Civil Court.
[6] Chodchoy Soponpanich *et al.*, *Is It True that Bangkokians' Quality of Life Will Be Better Off?*, 1995, at 5-13.
[7] The interview took place on 5 January 1997. It should be noted that, according to the Thai Legislative Drafting System, all the draft legislation must be reviewed by the Office of State Counsel. This office is empowered to edit any word(s), phrase(s) or sentence(s), as well as render its comments regarding the drafts it has reviewed to the Parliament for further consideration.

added this word in the Act. It was a long time ago. I think it must have been someone else who did that.[8]

While the precise origins of the ambiguity in the case remain unclear, this example sensitises us to the broader sociological literature on the enactment of legislation which suggests that commonly, legislators can appear to give considerable benefits to one group (commonly a popular cause) while at the same time protecting powerful interests by inserting ambiguous terms which make the law effectively, unenforceable.[9]

Also, vague legislation could discourage public participation, which has been hoped as a salient factor for the success of environmental regulation. As described in Chapter 2, the 1992 *Enhancement Act* unprecedentedly recognises the role of NGOs and grants certain privileges to a registered NGO. These include the right to receive assistance and support on some activities from the government.[10] However, the Act also stipulates that if any registered NGO's activity causes any disturbance, is against public order, or is unsuitable, the Minister of Science, Technology and Environment is empowered to revoke the registration of such NGO.[11]

A question arises: what kind of activity can be considered disturbance, be against public order, or be unsuitable? As we have seen, NGO's movements have played a crucial role in helping improve environmental situation in Thailand, including galvanising government to pass environmental legislation, as well as to take action against polluters.

Considering the nature of NGO's activities which are inevitably in disagreement with government in many cases, this ambiguous provision poses a concern among registered NGOs as it leaves room for the Minister to use his discretion as to whether an NGO's activity is disturbing, against public order, or unsuitable. Conceivably, this provision could discourage a registered NGO from doing their job vigorously as it realises that losing registration will deprive it of many rights given under the law.

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[8] The interview was conducted on 16 March 1998.
[9] Neil Gunningham, *Pollution, Social Interest and the Law*, Martin Robertson, UK, 1974.
[10] See Douglas Tookey 'Southeast Asian Environmentalism at its Crossroads: Learning Lessons from Thailand 's Eclectic Approach to Environmental Law and Policy', at 331.
[11] See the 1992 *Enhancement Act*, Section 8. See also Panat Tasneeyanond, 'The 1992 Enhancement of the National Environmental Quality Act', *Chulalongkorn Environmental Law Journal*, January 1995, at 90.

II. Agency's Task Environment

Government agencies are indispensable mechanisms to make environmental regulation work. However, their effectiveness may be influenced by many elements including the level of financial support and the provision of resources; lack of heavy penalties, political will; regulatory capture; a firm's ability to comply with regulation; and corruption.

A. Financial support and number of regulators

Despite the importance of funding, studies however reveal that enforcement agencies sometimes suffer from an insufficient allocation of funds. This problem could reduce the efficiency of the agencies in many aspects, including resources necessary for research; inspection; and enforcement.[12]

The relatively small remuneration paid to government officials in Thailand (a situation unchanged by the 'big bang' reform) is one example of inadequate financial support, and this in turn has important consequences for their effectiveness. As Eugene Bardach argues, many civil servants, owing to the small salaries and wages they receive, do not have enough motivation to exert their best effort to do their jobs.[13] In its extreme form, this can also lead to corruption, and it is in this context that the issue will be more fully explored in Chapter 5.

Inadequate financial resources may also result in the lack of sophisticated equipment necessary for regulators to do their job. In the case of Thailand, this situation seriously hinders the efficiency of regulatory agencies. In my interviews, Ms Krittayaporn Tappatat and Mr Titi Jantaengpol, scientists of the Industrial Estate Authority of Thailand (IEAT), pointed out that:

> As for the air pollution problem in Mab Ta Phut in mid 1996, we have not been able to pinpoint who the polluters exactly are because we did not have the device sophisticated enough to detect the direction from which pollution came. Although this hi-tech device

[12] Peter Yeager, *The Limits of Laws*, 1991, at 37.
[13] Eugene Bardach, *The Implementation Game: What Happens after a Bill Becomes a Law?*, 1977, at 76.

> is available now, the Thai government has not had it yet. Without this kind of device, it is difficult to do so as direction of air pollution can vary to the wind[14].

The number of regulators *vis-a-vis* that of regulated firms also has serious implications for regulatory success. The clearest evidence of this comes from a US study of the Office of Surface Mining (OSM). There are two different enforcement styles between the OSM officials in the western region and their counterparts in the eastern region of the United States. In the western region, the number of mining operators was not too great for the officials to monitor. Each inspector was responsible for 23 sites, and in turn was able to visit each site regularly. For this reason, the OSM western region inspectors gradually developed more understanding of the firms' situation, and adopted an effective cooperation-oriented enforcement style. In contrast, there were many mining operators in the eastern region. Each inspector had to deal with 111 enterprises. Given that the OSM eastern region inspectors were not able to visit each firm very often, they adopted a deterrence-oriented enforcement style.[15] Such an enforcement style, while perhaps inevitable with such limited resources, has proved to be less successful, particularly when the chances of detection and prosecution are themselves small as a result of the lack of regulatory resources.

In Thailand, shortage of manpower is frequently invoked as an explanation (or excuse) for the ineffectiveness of environmental regulation.[16] As Dr Prakit Kirawanich, former director-general of the Pollution Control Department (PCD) explained to me:

> Environmental situation in Thailand has not improved satisfactorily because we lack manpower. There are about 300 officials who have to deal with 60 million population in the area of 500, 000 square-kilometres.[17]

Despite this problem, the PCD has attempted to optimise its performance. As Dr Supat Wangwongwattana, the PCD's Director of Air Quality Management put it:

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[14] The interview took place on 21 January 1998.
[15] Shover *et al.* (1984, 1986), cited by Robert Kagan, in David Rosenbloom and Richard Schwartz, (eds.), *Handbook of Regulation and Administrative Law*, 1994, at 395-9.
[16] Sunee Mallikamarl, *Environmental Law Enforcement*, at 11.
[17] The interview was conducted on 18 December, 1996. It should be noted that the Pollution Control Department has its jurisdiction across the country, which covers an area of approximately 500, 000 square kilometres.

> PCD does not have enough officials to monitor motorists who violate the laws. Therefore, we have authorised police and officials from the Land Transportation Department to do this job on our behalf. It now appears that each of these two agencies implements the law to which it is responsible individually, justifying that the *Enhancement Act* does not have the heaviest penalties.[18]

B. Lack of sufficiently heavy penalties

As this thesis suggests in Chapter 6, command and control must remain one of the mechanisms to help revitalise Thai environmental regulation. Given that sanctions are an essential element of a command and control regime, criminal penalties must be in place. What kind of criminal penalties do we want remembering that there are many different kinds of polluters who bend the rules? Some tend to comply with regulation voluntarily, others after they receive only one warning letter, while still others will not be cooperative unless they are forced into compliance by tough sanctions.

Against this backdrop, there must be various kinds of penalties, ranging from lenient to severe punishment imposed on recalcitrants according to the magnitude of regulatory violation. Among these, tough penalties (sticks) are indispensable to apply to a hard-headed polluter after lenient ones (carrots) are ignored.

Studies show that many countries increase the penalties to make the punishment more expensive so that it becomes no longer economically rational to break the law. Take the case of the United States. Stricter penalties are being used as a means of ensuring environmental protection. Recently, the U.S. Sentencing Commission (hereinafter Commission), upon the suggestion of its Advisory Group on Environmental Sanction, has proposed a new guideline on environmental crime to the Congress. The Commission has suggested the imposition of very stringent conditions on polluters. If the regulated industry cannot meet the requirements, they will face harsh fines with an extremely

[18] The interview was conducted on 27 December 1996.

limited mitigation opportunities.[19]

Australia is another example. In 1981, the maximum fines under the Clean Air Act and Clean Water Act (NSW) were increased fourfold from those in the past. Further, in 1989, the then New South Wales Environment Minister, Tim Moore announced the 'getting tough on polluters' policy and subsequently introduced the Environmental Offence and Penalties Act in 1989. Interestingly, this Act brought about a dramatic increase of penalties for environmental offences. The maximum penalty is $ 1 million for a corporate offender and $ 150, 000 or seven years imprisonment, or both for individual offenders found guilty of serious offences.[20] Also, scholars point out that the increase of penalty has been very important in providing incentives to industry to improve its environmental performance.[21]

Turning to the Asian region, a number of countries have also increased penalties as a tool to curb environmental pollution. Take the case of Taiwan. Given growing pollution problems, Taiwan has recently increased penalties for non-compliance from US $ 2,400 to US $ 24,000 per day.[22] Singapore too, has increased the fine for illegal dumping and contamination of a site from Singapore $ 2,000 to $ 10,000 and/or an imprisonment. Moreover, such a jail sentence is mandatory if an offender is convicted for the second time.[23]

Unlike the countries above, Thailand did not rely on the increase of penalties despite the 1992 environmental law reform. Rather, the country focused on introducing a number of innovative measures such as the polluter pays principle, and strict civil liability as important tools to help improve the environmental situation.[24] As a result, many regulations still contain penalties which are not suitable for the present situation.

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[19] Jason Lemkins, 'Deterring Environmental Crime Through Flexible Sentencing: A Proposal for the New Organizational Environmental Sentencing Guidelines', *University of California Law Review*, 1996, at 308-9.

[20] Jennifer Norberry, 'Australian Pollution Law: Offences, Penalties, and Regulatory Agencies', a paper delivered to AIC/ACEL Conference *Crime and Environment*, Hobart, at 20-1.

[21] Zada Lipman and Lachlan Roots, 'Protecting the Environment through Criminal Sanctions: The Environmental Offences and Penalties Act 1989 (NSW)', *Environmental and Planning Law Journal*, February 1995, at 30-3.

[22] Andrea Zavadszky, 'Balancing the Legal Scales', *Asian Sustainable Development Report*, June-August 1994, at 28-9.

[23] Susan de Silva, 'Enforcement and Compliance Priorities' in American Bar Association, *Proceedings of Environmental Priorities in Southeast Asian Nations, 1997*, at 132-3

[24] See more details in Chapter 2.

For example, the 1992 *Maintenance of Public Cleanliness Act* has only fines but no jail sentence[25] (despite an opportunity for Thai legislators to include such an option when the regulation was enacted to supersede the now-defunct Act which had been in use since 1960). Another example can be drawn from the 1903 *Maintenance of Canals Act* which is still in operation. With respect to an offence related to water pollution, this Act stipulates that whoever dumps wastes into the canal will be subject to a fine up to 20 baht, which is less than A $ 1.00, or an imprisonment for up to one month, or both fine and imprisonment.[26] Clearly, the 'big bang' lacks heavy penalties to serve as sticks to help ensure the effectiveness of regulatory enforcement.

C. Political Will

Politics and regulation are inseparable. Many suggest that regulation is a political process, emerging from political demands and struggles.[27] As discussed earlier, many politicians pass the laws to merely appease their voters, regardless of how effectively such laws will be enforced. That is why many countries, Thailand included, have a large volume of laws but very weak enforcement.[28] Perhaps a good example to demonstrate this situation can be drawn from vague legislation, which causes uncertainty and in turn undermines the effectiveness of environmental regulation discussed earlier.

Studies also show that after a movement to have regulation enacted is successful, the politicians involved usually turn their attention to other issues.[29] Take the National Environment Board (NEB) meeting. As described in Chapter 2, the 1992 *Enhancement Act* restructured the NEB to make the board powerful enough to deal with environmental issues more effectively. This included having the Prime Minister as Chairperson of the board. However, it was found that some prime ministers did not attend the NEB meetings at all. Rather, they assigned the deputy prime minister who was the NEB's vice-Chairperson to preside over the meetings.[30]

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[25] Chatchom Akapin, 'Law Enforcement: An Issue to be improved for the Protection of the Thai Environment', *Dullapaha*, 1996, at 91.
[26] Ibid.
[27] Robert Kagan, in David Rosenbloom and Richard Schwartz, (eds.), *Handbook of Regulation and Administrative Law*, 1994, at 399.
[28] See Antonio Oposa, 'Legal Marketing of Environmental Law', *Duke Journal of Comparative & International Law*, Vol. 6.273, 1996, at 273-5. See also C-Zero, 'We find ourselves with too many laws', *Bangkok Post*, 3 July 1998.
[29] Marver Bernstein, *Regulating Business by Independent Commission*, 1955.
[30] Amnat Wongbandit *et al.*, *Recommendations for Laws and Regulations for Environmental Protection and Operating Mechanisms for Control and Enforcement*, A Report Submitted to the Pollution Control Department, 1997, at 10.

At the stage of enforcement, evidence shows that political will is crucial in determining the success or failure of regulation. Examples include the vital issue of political interference with law enforcement in an environmental case.[31] As Mr Somnuk Rubthong, director of the PCD's Legal and Complaint Division put it:

> Sometimes government prioritises economic development and political stability, regardless of environmental consequences. For example, while public prosecutors were prepared to prosecute intruders of the national reserved forest in 1975, M.R.[32] Kukrit Pramoj, the Prime Minister at the time, asked the prosecutors to set the offenders free.[33]

Put in its broader context, this last statement encapsulates the broader problem: there is often a tension between economic development and environmental protection, and politicians, in the absence of concerted pressure from environmentalists, international forces, or external markets, will usually have a much stronger interest in protecting development. Not only will there be greater economic and political rewards from doing so, but also, in a considerable number of cases, there will be other temptations, explored in the next chapter when we examine issues of corruption. The 'big bang' reforms are no exception to this analysis. Despite the steps purportedly taken in the 1992 *Enhancement Act* to protect the environment, little was done which would threaten economic development.

D. Regulatory Capture

As discussed earlier, when regulators have time to visit firms regularly, they are able to gain insight into firms' situations, and in turn adopt an accommodative enforcement style. On the other hand, however, a close relationship between firms and regulators could lead to the problem of regulatory capture.

Regulatory capture is a situation where regulators are sympathetic to the regulated industry and end up accommodating weak compliance by the industry.[34] Why and how

[31] Wasant Techawongtham, 'Courage to do the job will overcome', *Bangkok Post*, 3 July 1998.
[32] M.R. stands for 'Momratchawong', which is the word used in front of the name of those related to any king in the Chakri dynasty (Thailand's present dynasty) by bloodline.
[33] The interview took place on 16 December 1996.
[34] See David Parks, 'GATT and the Environment: Reconciling Liberal Trade Policies with Environmental Preservation', at 170.

does this happen? One must not forget that regulators themselves are a part of industry. Thus, if the industry no longer exists, there is a possibility that regulators can become jobless because they will have no one to regulate.[35] For this reason, regulators are prone to end up accommodating the interests of the regulated industry so as to sustain their existence.[36]

Capture can also emerge in the situation where regulators can see opportunities to switch to join regulated firms which offer better salaries and other benefits, such as bonuses. In this case, regulators will adopt accommodative enforcement to the industry's interest.[37] An example can be extrapolated from the Baryulgil report (1984), which suggested that at least one inspector who was responsible for mine safety at Baryulgil left his government job and then joined the firm he had regulated.[38]

It is also interesting to note, in relation to the agency's task environment, that regulators tend to adopt an accommodative style of enforcement if they are not overloaded with the number of firms they have to inspect. However, this could be a double-edged sword as far as regulatory capture is concerned. Scholars argue that a close relationship developed from frequent interactions between regulators and firms makes regulators particularly vulnerable to capture by regulated firms.[39]

This phenomenon takes place in Thailand as well. For example, regulators of the Department of Industrial Work (DIW), whose main function is to oversee industry's operation at almost every step, are reluctant to enforce the law against regulated plants when non-compliance is found because they are captured by a too close relationship. As Mr Supaporn Pukasemwarangkul, environmental officer, Harbour Department revealed:

> Whenever a plant's activity violates the laws under the DIW and my department's jurisdiction simultaneously, the DIW regulators often ask us to enforce the law, justifying their request that they know the polluter too well to get tough on them.[40]

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[35] Neil Gunningham, 'Negotiated Non-Compliance: A Case Study of Regulatory Failure', *Law & Policy*, 1987, at 85.
[36] Peter Yeager, at 37.
[37] Neil Gunningham, 'Negotiated Non-Compliance: A Case Study of Regulatory Failure', at 85.
[38] Ibid, at 78-9.
[39] Ian Ayres and John Braithwaite (1991), cited by Robert Kagan, in David Rosenbloom and Richard Schwartz, (eds.), *Handbook of Regulation and Administrative Law*, 1994, at 396.
[40] The interview was conducted on 16 March 1998.

Regulatory capture in Thailand could also result from the Thai culture of gratitude.[41] Research has found that many agencies do not enforce the law against some factories because these factories always provide support to their agencies. The support includes donation of office facilities such as air-conditioners and fax machines to remote and small government agencies whose budget allocation is often insufficient.[42] More details about how Thai culture influences regulation will be discussed later in this chapter.

E. Size of Firm: The Ability to Comply

Many technologies necessary for environmental management are too expensive for most small and medium firms to afford.[43] Studies have also found that small and medium firms often generate more pollution per unit of output than large firms operating in the same sector.[44] From this it would seem that the ability to afford expensive compliance technology is an essential factor in making regulation work and that in this context, size of firm will be a critical variable.

The challenge of regulating small firms is made even greater by the fact that they are not easily identified and targeted for enforcement action because of their size. As a result, they have an opportunity to maintain a low public profile, and this assists them to ignore environmental regulation.[45] As Mr Supaporn Pukasemwarangkul, Environmental Officer, the Harbour Department pointed out:

> Most small plants still cause water pollution problem. Our difficulty is to find these recalcitrants as the plants are normally situated in either remote areas, or residential

[41] See Scott Christensen *et al.*, *The Lessons of East Asia: Thailand, The Institutional and Political Underpinnings of Growth*, A World Bank Publication, 1993, at 20.
[42] Amnat Wongbandit, 'Laws Related to Factory's Wastewater Treatment', *Dullapaha*, January-March 1996, at 117.
[43] Jason Lemkins, 'Deterring Environmental Crime Through Flexible Sentencing: A Proposal for the New Organizational Environmental Sentencing Guidelines', at 335.
[44] Carter Brandon and Ramesh Ramankatty, *Toward an Environmental Strategy for Asia*, World Bank Discussion Papers, 1993, at 72.
[45] Christen White, 'Regulation of Leaky Underground Fuel Tanks: An Anatomy of Regulatory Failure', *Journal of Environmental Law*, Vol. 14:105, 1996, at 148-9.

community.[46]

However, as extensive research has revealed, small firms are a serious source of pollution. Take the case of the United States. Stunning statistics show that ninety-seven per cent of the first 280 firms sentenced under the General Organisational Guidelines introduced in 1994 were small firms.[47] Also, the case of the underground fuel tanks in San Francisco can serve as another example. Statistics show that of the 1017 sites reporting an unauthorised release between 1985 and 1990, 870 of the site owners were relatively small and less sophisticated firms.[48]

In Thailand too, the major sources of pollution are small and medium firms.[49] This assertion is supported by a study on the state of water pollution in the lower basin of the Chao Phraya River, Thailand's main river.[50] The study found that most factories situated in the basin are small and medium businesses, many of which allegedly discharged untreated wastewater into the river without prior treatment, thereby causing the problem of water pollution[51]. Here, it is crucial to emphasise that the 1992 *Enhancement Act* did not develop any coherent or potentially effective strategy for dealing with the problem of pollution by small firms, notwithstanding the seriousness of their aggregated environmental pollution.

Turning to large firms, do they always contemplate regulatory compliance given their financial ability to afford relatively costly environmental management technologies? Extensive research has found that large firms are more likely to comply with regulation because they not only can afford the environmental costs, but also need to maintain their public image.[52] As we will see later in this thesis, markets are becoming more environmentally sensitive. For this reason, some large firms realise that they risk losing

[46] The interview was conducted on 16 March 1998.
[47] Davidson (1995), cited in Jason Lemkins, 'Deterring Environmental Crime Through Flexible Sentencing: A Proposal for the New Organizational Environmental Sentencing Guidelines', at 337.
[48] Christen White, 'Regulation of Leaky Underground Fuel Tanks: An Anatomy of Regulatory Failure' at 149-50.
[49] Amornpot Kullawijit, 'Environmental Problem: Depletion of the Ozone Layer', *Dullapaha*, 1996, at 160. See also Thailand Environment Institute, *Cleaner Technology in Thailand*, 1997, at 6; and Dhira Phantumvanit, 'Infrastructure Development and Pollution Prevention Priorities', in American Bar Association, *Proceedings of Environmental Priorities in Southeast Asian Nations, 1997*, at 112.
[50] Office of Environmental Policy and Planning, *Report on Environmental Situation in the Year 1994*, 1995, at 263-6.
[51] Ibid.
[52] Christen White, 'Regulation of Leaky Underground Fuel Tanks: An Anatomy of Regulatory Failure', at 148-9.

their competitive advantage if their products are perceived to be major sources of pollution.[53]

But even if large firms do not decide it is in their competitive self-interest to comply with environmental regulation, it will at least be easier for regulators to take effective action against them. Robert Kagan compares large firms with elephants (which are very visible to regulators, communities and others). Hence, it is very difficult for the large firms to hide their non-compliance from detection because their violations are more visible.[54] Furthermore, the public always targets large firms as a main source of pollution as many environmental disasters in the past resulted from very large corporations such as Exxon-Valdez and Union Carbide.[55] Against this background, many large firms are very concerned about their image in relation to environmental protection.

Currently, many large firms in Thailand have put environmental management programs on their agenda. They have internalised the costs of expensive technologies in their production costs, as Mr Apaichon Wacharasindu, the Vice President of C.P. Group suggested:

> Business sectors must take part in improvements of environmental situation. We do not mind spending money on expensive equipment for environmental management. This is not because we are a big firm, but because we can perceive profits in the long run. When we comply with the law, we do not have to worry about paying fines, or providing *special treatment* (emphasis added) to government inspectors and so on. Furthermore, people now have more awareness than those in many years ago. So if our products are environmentally friendly, we do believe that people will trust our reputation and always look for our products. Eventually, we will gain more profits than the money we have paid for environmental treatment facilities. In addition, we have seen the laws as minimum requirements. So we always contemplate dealing with environmental issues

[53] Ibid.
[54] Robert Kagan, in David Rosenbloom and Richard Schwartz, (eds.), *Handbook of Regulation and Administrative Law*, 1994.
[55] Ibid.

beyond the criteria set out by the laws.[56]

Studies reveal that government officials have a propensity to trust that large firms, in light of their financial ability, will be more willing to comply with regulation, and as a result they adopt an accommodative enforcement style towards such firms.[57] However, it would be naive for regulators just to rely on the size of firms and to assume that all large firms will do the right thing voluntarily. Research has also found that large firms sometimes take advantage of the trust received from regulators, and violate regulations. Take the case of SFRWQCB Leaky Underground Fuel Tank (LUFT) program. As large firms are not facing frequent site visits, some of them violate the applicable regulation.[58]

Thailand has also experienced the same situation; Mr Vira Mavichak, deputy director-general, Department of Industrial Work pointed out that despite the fact that many large firms have sophisticated environmental management systems, "it has been found some of them discharge untreated wastewater and polluted air to the public".[59]

So we are left with a situation where small and medium-sized firms are major sources of pollution and have, by and large, neither sufficient capacity nor interest in voluntary compliance. Regulators lack sufficient resources to deal with them and the 'big bang' reforms provide no credible strategy for doing so. The picture with regard to large firms is somewhat more optimistic. Some of them at least will perceive an enlightened self-interest in complying voluntarily. But others will not, and there is considerable evidence, both in Thailand and elsewhere, that a substantial number of large firms also require considerable regulatory oversight, and without this, are likely to continue to be substantial sources of pollution; the case studies cited in the previous chapter provide graphic evidence of this. Yet once again, the 'big bang' reforms do not offer any credible strategy for dealing with them and the forces identified in previous sections (e.g. regulatory capture, lack of political will, inappropriate style of regulation, lack of regulatory resources) suggest that the 'big bang' reforms will in themselves be insufficient to achieve satisfactory environmental outcomes.

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[56] This informant gave the interview on 8 January 1997.
[57] Eugene Bardach and Robert Kagan, *Going by the Book: The Problem of Regulatory Unreasonableness*, 1982, at 260-1. See also Neil Gunningham, *Law & Policy*, 1987, at 82.
[58] Christen White, 'Regulation of Leaky Underground Fuel Tanks: An Anatomy of Regulatory Failure', at 151.
[59] The interview took place on 26 December 1996.

F. Cultures

As discussed earlier, regulation is an instrument invented to control human behaviour.[60] Cultures, which influence the way people behave, are involved in the success or failure of regulation. For the purposes of this thesis, Thailand has some cultures which help explain why environmental regulation does not work effectively in the country.

Overview of Thai culture

Thai culture is very much religion-oriented. Studies show that Buddhism is identified as the national religion of the country, as ninety-five per cent of the population, which is approximately sixty million, are Buddhists[61]. Given that Buddhism teaches people to treasure environmental values, Thai culture therefore encourages the Thai to live in harmony with the natural environment[62].

Thai cultures which hamper the success of environmental regulation

But Buddhism is a double-edged sword. Paradoxically, despite the nature-oriented attitude discussed above, some Thai cultural values can also become impediments to the success of environmental regulation. Cultural values include the power-oriented trait; the rule of karma; a preference for compromise ; individualism; and gratitude.

1. Power-oriented trait

Thailand has a historical background of being an authoritarian-ruled country; one of the main reasons is that the country has had a king as the leader for over seven hundred years. Given that Thailand had to do battle with some neighbouring countries who wanted to conquer and occupy it in the past, the king, who was also leader of the army, played an important role in defending the country. In doing so, the Thai king led the

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[60] Peter Yeager, *The Limits of Law: The Public Regulation of Private Pollution*, 1991, at 29.

[61] Douglas Tookey, 'Southeast Asian Environmentalism at its Crossroads: Learning Lessons from Thailand 's Eclectic Approach to Environmental Law and Policy', at 308-28.

[62] Adul Wichienchareon, 'The Environment and Culture of Thailand', *Symposium on Environment and Culture with emphasis on Urban Issues*, 1993, at 8-9. See also Eugene Clark and Suwit Laohasiriwong, 'Thailand's Quest for Sustainable Development', *The Australian Journal of Natural Resources Law and Policy*, Vol. 3 No. 1, 1996, at 80-1.

army to fight with enemies himself. Therefore, Thai people are held together by intense loyalty to the monarchy.[63]

Historians divide Thai history into four periods, Sukhothai, Ayudhaya, Thonburi, and Rattanakosin. In the Sukhothai period (1237-1350), there was minimal government as we know it in modern times. Nor was there formal recruitment of officials with institutionalised positions. Instead, the king was the supreme ruler of the country. He also appointed a number of people, most of whom were members of the Royal family and the elites, chosen at his favour to serve certain functions.[64] The administrative regime at the time could be termed a *paternal regime* as the relationship between the king and the Thai people was like that of a father and his children.[65] Despite such an administrative regime, high-ranking government officials were appointed by the king to administer remote cities which the king was not able to oversee by himself.

During the Ayudhaya period, which started in 1350, the *paternal regime* was replaced by the *absolute monarchy*. How did the transformation of the administrative regime occur? Notably, Thailand adopted the Devaraja cult from the Hindus during the Ayudhaya period. According to this cult, the king was regarded as a demigod, who was the Lord of lives and the sole owner of the land. For the purposes of this chapter, it is essential to note that the Thai also considered high-ranking government officials who were in power as representatives of the king and paid high respect to them.[66]

Ironically, although the absolute monarchy was replaced by constitutional monarchy in 1932, the power-oriented trait among the Thai continued. Many Thai are still inclined to obey and respect those who have authority. Also importanlty, the Thai prefer social problems, including environmental issues, to be handled by the government and incumbent politicians.[67]

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[63] Sippanondha Ketudat, *The Middle Path for the Future of Thailand: Technology in Harmony with Culture and Environment*, 1990, at 4-5.
[64] Likhit Dhiravegin, *The Bureaucratic Elite of Thailand*, at 16-8.
[65] The reason was that Thailand in the Sukhothai period was a new-born kingdom, with a small population who lived not far from each other. Besides, the country was frequently attacked by several groups of enemies who wanted to occupy it. The Thai relied heavily on the king who was their leader in forming the country as well as in fighting the enemies. See Pornsak Pongpaew *et al.*, at 67-9.
[66] See Thinapan Nakata and Likhit Dhiravegin, 'Social and Cultural Aspects of Thai Polity', in Suchart Prasith-rathsint, ed., *Thailand's National Development: Social and Economic Background*, 1989, at 168.
[67] Ibid at 184.

How does the power-oriented culture impede the success of environmental regulation in Thailand? Evidence shows that this culture could both hamper public participation and simultaneously discourage regulators' performance.

As for public participation, we have already learned that it has been integrated in the newly reformed legislation as one of the innovative elements to help improve the environment. Conceivably, however, if Thai people still have too much respect to government authority and are reluctant to get involved in environmental issues, which includes expressing their views, chances for the success of public participation are very slim. Of more importance, allowing those in power to administer the country without sufficient public monitoring resulted in degradation of natural resources and the environment, including air and water pollution as discussed in the previous chapters.[68]

At the other end of the continuum, the power-oriented culture could undermine the efficiency of the regulators' performance. It was found that many firms tend to invite those in power to be members of boards of directors, who do not have much to do with the firms' operation. Also, they usually thrive to establish 'strong connection' with incumbent authorities[69]. This is because they realise that regulators, most of whom hold low or medium ranking in the government service, will be reluctant to enforce the law against their firms as they do not want to confront such powerful figures[70]. As Mr Supaporn Pukasemwarangkul, environmental officer, Harbour Deparment revealed:

> During inspection, some plants often threaten us by mentioning strong relationship with powerful authorities[71].

2. The rule of karma

[68] For example, the Thai government in the past conducted many activities arbitrarily to trade off Thailand's natural resources with economic growth. These include the concessions to private companies, both local and foreign, to cut the trees for over 100 years since the Forestry Department had been established in 1889. However, this has turned out to be detrimental to many local people's welfare. After the occurrence of many serious incidents resulting from deforestation, such as the unusual drought in 1979, and heavy floods in 1988, the government decided to close down the concession forests across the country in 1989 (The Environmental Organisation Network, 1995: 122).

[69] Amnat Wongbandit, 'Laws Related to Factory's Wastewater Treatment', at 117.

[70] Asavin Chintakananda, 'The need for change cries out', *Bangkok Post*, 13 July 1999.

[71] The interview was conducted on 16 March 1998.

It is necessary to re-emphasise that the Thai cultures are closely related to Buddhism. Importantly, Buddhism teaches people to believe in *karma* (deeds). Under the karmatic rule, people usually believe that whatever they are confronting now is what they deserve, for it has been predetermined by their actions in a past or former life.[72] This belief directs people to believe in fate, thereby discouraging them from struggling to make changes for the better.[73] As far as regulatory success is concerned, this culture-related perception has become one of the major obstacles to making regulation work in Thailand. As Dr John Yeates, Managing Director of CMPs (Thailand) put it:

> The majority of Thai people are Buddhists. However, the principle of "karma" in Buddhism has taught people to accept things as they are. That is why most of the Thai are too quiet to speak out...Guys at the bottom should do something[74].

Given that current environmental regulation depends on public participation to help make the law work, the concept of *karma* could hamper legal implementation if people do not contemplate changes. For example, the 1992 *Maintenance of Public Cleanliness Act*, one of environmental legislation, allows any person who witnesses wrongdoing under this legislation to report to government officials although such person is not an injured party in the case.[75] Therefore, if such a person sticks to the rule of *karma*, the chances are that he or she will accept that the wrongdoings are the result of an action in the past and in turn does not feel like taking action prescribed by law. In other words, how will environmental situation be improved if people do not perceive any wrongdoing as something to be tackled by legal mechanism?

3. The Culture of Compromise

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[72] Withaya Sucharithanarugse, 'The Thai Concept of Power', in Ernest Boesch, ed., *Thai Culture: Report on the Second Thai-European Research Seminar*, 1982, at 506.

[73] See Thinapan Nakata and Likhit Dhiravegin, 'Social and Cultural Aspects of Thai Polity', at 181-4.

[74] The interview was conducted on 26 November 1996.

[75] Section 51 of the Maintenance of Public Cleanliness Act, 1992 states that

In the case any offence is committed under this Act, any person who witnesses the case may report to a police investigator, local officer or any authorised official to perform his or her duty without any delay. In this case, such a witness shall be deemed as an injured party according to the Criminal Procedure Code.

> "The culture of compromise obstructs the success of law enforcement" (Mr Somnuk Rubthong, director of Legal and Complaint Division, the Pollution Control Department).[76]

To a certain extent, the "middle path" precept of Buddhism helps to explain the culture of compromise.[77] As a result of this culture, the Thai are modest, considerate, and reluctant to hurt others' feelings by decisive acts. Thais prefer to avoid conflict and confrontation.[78] Notably, the Thai express the compromising culture by adopting *"mai pen rai"* (never mind), *"choei"* (to feel indifferent), and *"chai yen"* (cool heart) approaches to end irritating events in a peaceful way.[79]

What is wrong with the culture of compromise? It is evident that Thai people are quiet tolerant of many unlawful practices. For example, the Thai refrain from reporting environmental violations by their neighbours, merely to avoid creating problems with each other.[80] Obviously, the culture of compromise has discouraged the Thai from standing up to protect their rights for fear that a conflict will take place. As Dr Sunee Mallikamarl has suggested:

> According to Thai culture, people seem not to protect and maintain the rights they have. Particularly if any adverse effects do not happen to them directly, they always ignore them. Importantly, many people see environmental problems as an issue which is remote from them.[81]

The above assertion is well supported by the Mae Moh case discussed above. Although sulphur dioxide emitted from EGAT's plants caused injury to human health and damage to many assets in the locality, the case ended in a compromise as EGAT has agreed to pay compensation to injured persons, and to relocate local people living away from the plants.[82]

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[76] The interview took place on 16 December 1996.
[77] Thinapan Nakata and Likhit Dhiravegin, 'Social and Cultural Aspects of Thai Polity', at 185-6.
[78] Eugene Clark and Suwit Laohasiriwong, 'Thailand's Quest for Sustainable Development', *The Australian Journal of Natural Resources Law and Policy*, Vol. 3 No. 1, 1996, at 67.
[79] Chalinee Atthakornkowit, *An Analysis of Marketing Communications Development and Practices in Thailand from 1987 to 1991*, A Master of Arts in Communications thesis, the University of Canberra, at 35-6.
[80] Douglas Tookey, 'Southeast Asian Environmentalism at its Crossroads: Learning Lessons from Thailand 's Eclectic Approach to Environmental Law and Policy', at 328.
[81] The interview took place on 9 January 1997.
[82] Sunee Mallikamarl, *Environmental Law Enforcement*, 1997, at 125-33. [82] The interview was conducted on 10 January 1997.

From the government point of view, the culture of compromise also has potential to undermine regulatory enforcement in which government officials play a key role. As Mr Somjai Nilsittanukroh pointed out during my fieldwork interview:

> Thai culture encourages people to be understanding and sympathetic. This concept is good but problems arise when strict enforcement is required. Officials are always reluctant to be tough on people who broke the law because they could not afford an environmentally friendly technology.[83]

4. Individualism

Studies show that most Thai people are freedom-loving.[84] Ironically, the Thai attitude towards freedom has got out of control over time. This is evident in the saying among the Thai of "Doing whatever pleases one's mind is a genuine Thai trait".[85]

Perhaps misinterpretation of the above saying has made the Thai become self-centred. Some critics argue that most Thai people lack discipline[86] and social responsibility[87]. Given this fact, one may suggest that the law, which is invented for the purpose of social control, be applied. Research has found that the Thai do not like to be forced[88]; they do not like to be forced even by the law. As Mr Tinnawat Marukapitak, former deputy minister of Public Heath, put it:

> To address environmental problem in Thailand, we cannot just rely on the command and control approach. It is a culture of the Thai that they do not like to be forced by anyone.[89]

Similarly, Dr Kittisak Prokati, of Thammasat University, Bangkok suggested:

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[83] The interview was conducted on 10 January 1997.
[84] Thinapan Nakata and Likhit Dhiravegin, 'Southeast Asian Environmentalism at its Crossroads: Learning Lessons from Thailand 's Eclectic Approach to Environmental Law and Policy' at 183.
[85] Interview with Dr Hansa Sanguannoi on 10 Janurary 1997.
[86] 'Lazy, lawless Thais did it themselves', *Bangkok Post*, 27 September 1999.
[87] Thinapan Nakata and Likhit Dhiravegin, in Suchart Prasith-rathsint, ed., *Thailand's National Development: Social and Economic Background*, 1989, at 183. See also 'We must sit down and think critically', *Bangkok Post*, 1 February 1999.
[88] Manas Sa-nguandeekul, 'Feedback from Private Sector towards Government Policy on Environmental Management', A Paper Presented in the Seminar, Industrial Development and Environmental Conservation, Cholburi, Thailand, 27 September 1996.
[89] The interview was conducted on 19 March 1998.

> Law enforcement in Thailand has failed as a result of two main causes. These include lack of legal consciousness among the Thai. It appears that they perceive the law as an alien.[90]

For the purposes of this thesis, this phenomenon could lead to environmental regulatory failure as many Thai skirt environmental law.[91] According to Dr Hansa Sanguannoi, an advisor to the Bangkok Governor,

> Behaviour has obstructed the development of discipline , which is the first stage of solving environmental problems.[92]

5. Gratitude Culture

Gratitude is one of the most prominent characteristics in Thai culture.[93] Perhaps this culture was invented to encourage the ethic of giving, which derives from a concept of *hai than*[94] in Buddhism. The *hai than* precept teaches people to know how to sacrifice and give things to others. The Thai are taught to be *eua feua pheua phae* and *mi nam jai*, both of which mean to be generous and willing to give.[95] Equally importantly, a receiver is supposed to have gratitude towards the giver.

What is wrong with the gratitude culture? Despite the philosophy of gratitude, the culture could become an impediment to regulatory success. Obviously, the giving practice creates a patron-client relationship between giver and taker. While a patron provides assistance to a client, the client is then bound by gratitude to reciprocate to his or her patron. Studies show that gratitude could make the Thai forgo principle, and turn to prioritising personal obligation. For example, local people are inclined to put up with pollution generated from a plant where they or their relatives work as they realise that

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[90] The interview was undertaken on 10 February 1998.
[91] Dhira Phantumvanit, 'Infrastructure Development and Pollution Prevention Priorities', in American Bar Association, *Proceedings of Environmental Priorities in Southeast Asian Nations, 1997*, at 92.
[92] The interview took place on 9 Janurary 1997.
[93] Adul Wichienchareon, *Symposium on Environment and Culture with Emphasis on Urban Issues*, 1993, at 9.
[94] The phrase *hai than* is a combination of *hai*, a Thai word, meaning 'give' and *than*, a Sanskrit word meaning 'gift'.
[95] See Patrick Jory, 'Corruption, the Virtue of Giving, and Thai Political Culture', in Proceedings of the Sixth International Conference on Thai Studies, Chiengmai, Thailand, 1996, at 115.

reporting to the authority will cause trouble to the employer who is considered their patron.[96]

Take the case of quarrying in Saraburi, a province which is home to limestone, marble and other rock quarries. From 1989, a survey conducted by the Pollution Control Department (PCD) found that the level of rock dust was 120 micrograms per cubic metre over the standard. Following this finding, the Public Health Ministry's Occupational Health Division conducted a survey on health conditions among teachers and students at the Napralan school, located in Napralan sub-district of the province, during the past few years. The study in 1996 revealed that three out of forty students and nine out of forty-seven teachers had silicosis, a kind of lung disease, which was caused by accumulation of small particles of dust.[97]

How did parents and school teachers react? So far, none of them have reported this situation to the authorities. As Mr Sompong Thoopwong, the school director, revealed, most parents were workers at the quarry plants themselves. They were worried that they would be unemployed if the plants were shut down. As for the teachers, evidence shows that consistent support from quarry owners to the school is another reason why teachers were reluctant to report their ordeal to the government agency concerned. Anjira Assavanonda quoted Ms Suntri Sri-aram, a teacher at the Napralan school, as saying "nobody here wants to cause them (the quarries) trouble. The operators are kind to us. Our school can survive because of their help. Donations, teaching equipment and even anti-dust equipment such as face masks mostly come from them".[98]

Research has found that many firms manipulate the gratitude culture to work their way towards regulatory capture. In doing so, some firms often provide assistance to government regulators. This creates gratitude among regulators, who will feel reluctant to get tough on the donors when they violate the law.[99]

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[96] See Sunee Mallikamarl, 'An Alternative to Remedy Those Affected from Pollution Problems', *Dullapaha*, 1996, at 103.
[97] Anjira Assavanonda, 'Quarry dust damages young lungs', *Bangkok Post*, 22 June 1998.
[98] Ibid.
[99] Amnat Wongbandit, 'Laws Related to Factory's Wastewater Treatment', at 117.

Chapter 5

The Problem of Corruption in Thailand

Introduction

Among the factors responsible for regulatory failure enumerated and discussed in the previous chapter is corruption. When corruption takes place, regulation, which is expected to work as a mechanism to maintain legitimacy and fairness in society, is always forgone or distorted. For example, corrupt authorities connive at non-compliance of regulated firms, which causes damaging consequences to people at large. Clearly, corruption creates inequality and threatens the basis of a democratic regime.

This chapter examines how corruption undermines regulatory success. It begins by providing a bird's eye view of corruption at the global level before focusing on the situation in Thailand. The chapter also provides a number of case studies of corruption or unusual practices in the environmental context. These cases also epitomise the failure of Thai environmental regulation stemming from corruption: the central theme of the chapter.

Defining Corruption

Many scholars of sociology and political science conclude that it is not possible to provide a universally comprehensive definition of corruption. The reason is that corruption is not a scientific or mathematical formula which can be translated straightforwardly. Rather, what corruption is depends on the individual, on perception, and on the context. The definition of corruption may change not only with individuals, but with circumstances. A kind of behaviour which is considered indecent in one situation may be acceptable in another context. For example, one does not condemn a Jew for bribing his way out of a concentration camp.[1]

[1] Susan Rose-Ackerman, *Corruption: A Study in Political Economy*, 1978. See also John Gardiner, 'Defining Corruption', in Maurice Punch *et al*, eds., *Coping with Corruption in a Borderless World*, at 27.

Despite the difficulties involved in definition, it is worthwhile to provide some different definitions of corruption in order to get a broad understanding of the phenomenon. In the *Dictionary of the Social Sciences* of 1964, corruption is defined as "...the use of public power for private profit...in a way that constitutes a breach of law...".[2] Leslie Palmier states that such a definition applies not only to an official who takes the bribes to act or not to act, but to the one who does not take any bribe, but uses his office to enrich himself illegally.

Forms of Corruption

Many scholars point out that corruption is neither a single form of behaviour nor a certain kind of conduct. It is the name of reciprocities among some people in some contexts at some times.[3] Various definitions of corruption as we have seen above inevitably create confusing "pictures" of corruption. What kinds of practices are considered corruption? How many forms of corruption are there altogether? Given that perception of corruption could be subjective as already discussed, one might be disappointed at not receiving a satisfactory answer: it is not possible to conclude what the forms of corruption are. However, the most common practices include bribery, extortion, state-bribery, and auto-corruption.[4]

Bribery is the most ubiquitous form of corruption. According to this method, officials are paid to exercise their authority in favour of the paymasters. It is usually initiated either by officials who see their authority as the machine to make money, or by the people who are willing to pay the corrupt officials to "buy convenience" for their businesses. In this process, government officials convert their offices into private gain in many ways. For example, parliamentarians can sell their votes in important sessions such as censure debates. Bureaucrats sell their discretions over licenses, permits, etc. Procurement officials expect kickbacks. Inspectors look to extort payoffs.[5]

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[2] See Leslie Palmier, *The Control of Bureaucratic Corruption: Case Studies in Asia*, 1985. In his study, Palmier cited Aikin, who suggested the above definition in 1964.
[3] Frank Anechiarico and James Jacobs, *The Pursuit of Absolute Integriy: How Corruption ControlMakes Government Ineffective, 1996.*
[4] Ibid.
[5] Heidenheimer, Arnold, Michael Johnston, and Victor LeVine, eds., *Political Corruption*, 1987.

Extortion is an attempt initiated by a powerful official with an aim to obtaining money or other valuables from the people concerned. It includes a threat that the services or permits from the government are unlikely to be provided. Such threats will of course force people who want to receive services or permits from the government to respond to the corrupt official's demand.

State-bribery is an abuse of public resources or properties for the purpose of political control or strengthening patronage. According to this kind of corruption, public resources or properties are usually allocated to the cliques of corrupt officials. Auto-corruption is the taking of public resources to an official's own coffers in any deals with which two or more parties are involved. For example, a corrupt official may award a contract to himself through a dummy company.[6]

I. Corruption and Regulatory Failure

"Corruption is the main actor for regulatory failure" (Dr Pasuk PhongPhaichitr).[7]

As previously discussed, regulation is seen as a mediator to help solve social conflicts.[8] Yet it often fails when corruption is involved. Clearly, corruption creates discrimination among people to whom the same regulation applies.[9] Given that the main objective of regulation is to control social behaviour by means of equal treatment to people in the society, when discrimination takes place as a consequence of corruption, it disrupts the regulatory goal.

A. Overview of Corruption Internationally

Corruption is not a novel phenomenon, nor is it limited to certain places. Indeed, corruption was complained about in the Bible over three thousand years ago.[10] At

[6] Sakkarin Niyomsilpa, *The Political Economy of Telecommunications Liberalisation in Thailand,* Ph D thesis, The Australian National University, 1995, at 181.
[7] Interview with Dr Pasuk PhongPhaichitr on 22 January 1998.
[8] Neal Shover, Donald Clelland and John Lynxwiler, *Enforcement or Negotiation: Constructing a Regulatory Bureaucracy*, 1986, at 9.
[9] Jan Tinbergen, 'Social Integrity in the New World Order', in Maurice Punce *et al*, eds., *Coping with Corruption in a Borderless World*, at 105.
[10] Henry Bosch, 'Growing threat of international corruption', *The Jakarta Post*, 30 September 1997.

present, corruption is being identified as a major impediment to the administration of justice and the achievement of development, which exists both in developed and in developing countries.[11] Against this background, scholars have suggested that corruption should be not only watched closely, but addressed at the international level.[12]

Consistent with the above suggestion, corruption has received a great deal of attention from international institutions such as the World Bank, the Organization for Economic Co-operation and Development (OECD), and the World Trade Organisation (WTO).[13] As for the World Bank, evidence shows that its most recent report focuses on the problem of corruption and demonstrates that corruption has extremely damaging effects on economic development.[14]

Also, corruption has been a subject of discussion among OECD countries. In the convention held in early 1998, twenty-nine members of OECD countries and five others attending the convention have agreed that bribing any foreign official is no longer business as usual. Rather, it is a crime.[15] The OECD Convention has come into effect since 15 February 1999[16], requiring the thirty four signatories to employ the provision of the convention in their domestic laws.[17] The enforcement of the convention's rules includes the criminal prosecution and the imposition of heavy penalties on both corporations and individuals guilty of a violation.

Extensive studies show that transnational bribery is pervasive within international trade regimes.[18] Against this background, WTO has planned to embark on negotiation with regard to the issues of transparency, openness, and due process in government procurement practices among WTO members.[19] This could readily be applied to the particular area of environmental problem such as pollution.

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[11] See Maurice Punch in Maurice Punch *et al.*, eds., *Coping with Corruption in a Borderless World*, 1992, at 15.
[12] See Daniel Kadlac, 'Corruption: The Facts', *Foreign Policy*, 1997, at 114.
[13] See Ibrahim Shihata, 'Corruption – A General Review with an Emphasis on the Role of the World Bank', *Dickinson Journal of International Law*, 1997, at 468-71.
[14] The World Bank, *The World Development Report 1997: The State in a Changing World,1997.*
[15] Michael Hershman, 'A blow against bribery', *The Financial Times* (US Edition), 23 February 1998, at 14.
[16] Kowit Sanandang, 'Bribes are the bane of society', *Bangkok Post*, 16 October 1999.
[17] Stephen Silber QC, 'New Definitions to Root Out Corruption', *The Times*, 3 March 1998.
[18] Philip Nichols, 'Corruption in the World Trade Organisation: Discerning the Limits of the World Trade Organisation's Authority', *New York Journal of International Law and Politics*, 1996, at 713.
[19] Steven Salbu, 'Bribery in the Global Market: A Critical Analysis of the Foreign Current Corrupt Practice Act', *Washington & Lee Law Review*, 1997, at 235.

Sudden and vigorous attacks on corruption however have not necessarily served to reduce the recurrence of the phenomenon. Many studies show that corruption has long existed in the U.S.[20] Not long ago, research found that, during the eight-year Reagan Administration, over one hundred federal officials were either indicted or convicted of corruption. Most recently, several members of President Clinton's administration, including Agriculture Secretary Mike Epsy and former Associate Attorney General Webster Hubbell, have been charged with corruption.[21]

Elsewhere, several ministers in the U.K. had to resign on charges of corruption with which business interests were involved. In Italy, a Milan businessman who had been awarded a contract to clean a municipal nursing home disclosed that he was forced to pay a ten per cent kickback to the politician who oversaw the contract. As a result, the accused politician was found guilty by the Magistrate of Milan. This case triggered a crack-down on corruption across Italy. Subsequent extensive investigations found that around 40,000 government officials might have been involved in all kinds of corruption. Further, as many as 200,000 bureaucrats, businessmen, and politicians were subject to charges. It was also estimated that in 1991 alone, up to 15 per cent of the nation's $ 100 billion budget deficit was siphoned off as kickback money in Italy.[22]

Although corruption has been found in both developed and developing countries, many scholars argue that corruption tends to be more pervasive in developing countries.[23] This is evident from a survey conducted by Transparency International (TI), the Berlin-based organisation dedicated to attacking graft. In 1999, TI ranked the 99 surveyed countries on a scale from 10 (very clean) to 0 (very corrupt). Importantly, the survey found that the top ten corrupt countries are developing ones, the worst being Cameroon (1.5), Nigeria (1.6), Indonesia (1.7), Azerbijan (1.7), Uzbekistan(1.8), Honduras (1.8),

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[20] Examples include the 1922 Teapot Dome scandal. In this case, Albert Bacon Fall, the Secretary of the Interior, was convicted for accepting a bribe from two companies in exchange for granting the rights to drill oil in the Navy's oil reserves. Regrettably, corruption even involved those who were supposed to render justice. In 1939, Judge Martin T. Manton was convicted of bribery for accepting money from litigants to 'fix' cases. See Maurice Punch, Emile Kolthoff, Kees van der Vijver and Bram van Vliet, *Coping with Corruption in a Borderless World*, Proceedings of the Fifth International Anti-Corruption Conference, 1992, at 565-8 for greater details.

[21] Frank Anechiarico and James B. Jacobs, *The Pursuit of Absolute Integrity*, at 10-11.

[22] Pasuk PhongPhaichitr and Sungsidh Piriyarangsan, *Corruption and Democracy in Thailand*, 1994, at i-ii.

[23] Ledivina Carino and A.T.R. Rahman, 'Negative Bureaucratic Behavior and Development: An Introduction to a Seven-Nation Research Project', in Carino, ed., *Bureaucratic Corruption in Asia*, at 1.

Tanzania (1.9), Yugoslavia (2), Paraguay (2), and Kenya (2). Thailand is ranked 68th (3.2) in this survey.[24]

More specifically to Asian region, TI ranked Indonesia as the most corrupt country, followed by Vietnam and Thailand.[25] This survey is a prominent indication showing how serious the problem of corruption in Thailand has been.

B. Corruption in Thailand

One of the fundamental problems facing any attempt to outlaw corruption in Thailand is that forms of behaviour which are regarded now as corrupt have been previously regarded for centuries as a normal and understandable part of the whole administrative system. As Uthai Hiranto postulates, corruption is a common practice in Thailand.[26]

Several studies suggest that there are two major categories of corruption in Thailand: bureaucratic corruption and political corruption[27], both of which play a significant role in undermining regulatory success in the country, including that related to environmental regulation.

1. Bureaucratic Corruption

Like many other democratic countries, Thailand empowers bureaucracy substantially to implement applicable laws as well as national policies. In doing so, many officials are easily tempted to corrupt behaviour due to the role of decision makers who provide services to people. Hence, they are susceptible to being dragged into a vicious circle of corruption because there are many people who are willing to "buy convenience" from the officials in exchange for fast services, especially where the resources are limited.[28]

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[24] 'Thailand ranked 68th in palm grease poll', *Bangkok Post*, 27 October 1999.
[25] 'The Corruption and the Free', *Bangkok Post*, 18 November 1999.
[26] See Uthai Hiranto, cited Sutton in *Civil Servants: Why Corruption?*, 1962, at 49-50. Notably, this view has been endorsed by many critics and confirmed by my fieldwork interviews. For example, Dr John Yeates, an environmental consultant who was working in Thailand for almost two years pointed out that: Corruption has become normal practice in Thailand'. The interview was conducted on 25 November 1996.
[27] Pasuk PhongPhaichitr and Sungsidh Piriyarangsan, *Corruption and Democracy in Thailand,* at 2.
[28] Pasuk PhongPhaichitr and Chris Baker, *THAILAND: Economy and Politics*, 1995, at 235-7.

At present, bureaucratic corruption remains not only a widespread phenomenon, but an inescapable aspect of life in Thailand. But many government officials do not perceive corruption as wrongdoing. As Mr Klanarong Jantik, Secretary-general of the Counter Corruption Commission put it:

> Widespread corruption makes officials get used to it, and do not think it is wrong. Take the bribery case in which I and police have arrested a corrupt policeman recently. The corrupt officer asked the wife of an offender in a theft case to give him 10,000 baht in exchange for setting the offender free. Amazingly, this bribery case occurred in the police station. Indeed, it is apparent that many bribery cases take place in the police stations where a number of police are working in the same room. This shows that corruption is done openly among government officials. What I think is very dangerous is that many officials do not think corruption is illegal. This leads to familiarity with corruption in the end.[29]

So far, many complaints have been submitted to the National Counter Corruption Commission (NCCC)[30], the government agency responsible for combating corruption. Among these complaints, there are cases involving all levels of bureaucrats from various agencies.[31]

[29] The interview took place on 9 March 1998.

[30] The National Counter Corruption Commission (NCCC) was established under the 1997 Constitution to replace the now-dissolved Counter Corruption Commission (CCC). The organic law empowering the NCCC to do its job has just been passed on 18 November 1999. The NCCC has assumed all the CCC's responsibilities, thus taking over all the work pending under the CCC's investigation.

[31] In 1996 alone, there were 1,497 complaints submitted to the CCC. Among these, officials from Ministry of Interior had the most complaints with 479 cases, while those in the Ministry of Justice were least complained about with 3 cases. See Counter Corruption Commission, *Annual Report* 1996, at 35-41 for further details.

2. *Political Corruption*

Political corruption is a term used when politicians either by themselves or in collaboration with bureaucrats abuse their power and authority for private gain.[32] Political corruption surfaced long after bureaucratic corruption. This is because democracy was introduced in Thailand for the first time after absolute monarchy was abolished in 1932. With the emergence of independent politicians, corruption soon followed.

Thai Regulation dealing with political corruption (prior to the emergence of the National Counter Corruption Commission on 18 November 1999)

Despite the pervasiveness of both bureaucratic and political corruption, most relevant regulations in Thailand nevertheless focus on bureaucratic corruption. For example, the 1956 *Criminal Code* contains several provisions dealing with misconduct and irregularities among government officials.[33] However, although the Code was enacted in 1956, which was the time Thailand had the national parliament, it has contributed only one section to political corruption.[34] It is arguably an example of politicians using their self-interest to avoid criminalising themselves.

Although the CCC was established as an agency which dealt with corruption in Thailand since 1975, its jurisdiction was limited under the relevant law to dealing with bureaucratic corruption only.[35]

Previous attempts to combat political corruption: A story of failure

Despite the lack of legislation to weed out political corruption, an attempt to topple corrupt politicians emerged without regulatory support. It was a *coup d'etat* that

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[32] Louge (1988), cited in Sakkarin Niyomsilpa, *The Political Economy of Telecommunications Liberalisation in Thailand,* at181.

[33] See sections 147-166; 200-205 of the Thai Criminal Code.

[34] Section 149 provides that "Any official; legislative member; member of provincial council; member of municipality council who has asked for; received; agreed to receive any assets or benefits for himself or anyone else illegally, in order to conduct or not conduct any action which is under his authority, whether or not the action is legal, such person shall be subject to an imprisonment of five to twenty years, or life imprisonment, plus a fine as from two thousand baht to forty thousand baht, or execution".

[35] See the 1975 *Prevention and Suppression of Corruption and Misconduct among Civil Servants Act,* Sections 3, 13, 17.

provided an opportunity to improve the *status quo*. The revolution was conducted by the National Peace-Keeping Council (hereinafter NPKC), which justified its action as a way to save the country from the chronic political corruption which permeated Thailand's quasi-democratic regime at the time. The NPKC toppled the government under the premiership of General Chatichai Choonhavan in February 1991.[36]

Ousting corrupt politicians from their offices was not the ultimate goal of the *coup d'etat*. The NPKC also appointed the Asset Examination Committee (hereinafter AEC) to investigate the unusual wealth of the alleged corrupt politicians, as well as the sources of their assets. After a long investigation, the AEC found that there were ten politicians who were unusually rich and accordingly imposed orders to confiscate their assets, the sources of which were illegal. Not surprisingly, these politicians included the former Prime Minister, General Chatichai Choonhavan. The total amount of assets confiscated from the ten politicians was around two billion baht.[37]

However, the attempt of NPKC to eliminate corrupt politicians finally failed when the defendants submitted a motion to the Court of Justice to revoke the confiscation order imposed by the AEC. Subsequently, the Supreme Court ruled that the NPKC's order No. 26, which appointed the AEC, was against the 1991 *Constitution* (which was passed in the reign of Prime Minister Anan Panyarachoon in 1991) which stated that the power to hear and render verdicts on the cases belonged to the court. As a result, the AEC's order to confiscate the defendants' assets (which the Supreme Court considered as a kind of verdict) was held to be against the constitution and therefore voidable. [38] Importantly, however, although the ten defendants were free from assets confiscation according to the Supreme Court order, it should be noted that the Supreme Court did not say that they were not corrupt.

[36] The Chatichai government was notorious for corruption. The government was dubbed the "buffet cabinet", which reflected the increasingly widespread corruption among political authorities at the time. Soon after *coup d'tat*, NPKC appointed Mr Anan Panyarachoon, a former diplomat-turned-businessman, as the Prime Minister.

[37] Pornsak Pongpaew *et al.*, *Body of Knowledge on the Corruption in Thai Government Service*, A report submitted to the Counter Corruption Commission, 1996, at 281-9.

[38] Ibid, at 290-7.

Establishment of the National Counter Corruption Commission (NCCC): another attempt to fight against political corruption

As discussed above, CCC lacked power to deal with political corruption. Against this backdrop, there has been an attempt to improve the law to enable the agency to do so. The attempt took place when the Constitutional Drafting Committee (CDA) was set up during the Barnharn administration in 1996 in order to improve the ailing situation of Thai politics by changing the Thai constitution.

CDA tirelessly drafted the new constitution to supersede the old one and completed its task within nine months. The new constitution also includes the provisions aimed at combating political corruption. These include replacing the Counter Corruption Commission (CCC) which did not have power to tackle political corruption with the National Counter-Corruption Commission (NCCC); and a mandate that all politicians who hold cabinet posts must declare their assets to the NCCC upon taking up and leaving offices. Another important issue prescribed in the new constitution is that any MP who is appointed a minister must resign his or her MP status. This is to separate administrative from legislative power to encourage checks and balances, which will in turn help prevent political corruption through the parliamentary system.[39]

After the current Constitution came into effect in 1997, the organic law legally establishing the NCCC was passed on 18 November 1999. The NCCC is equipped with substantial power to deal with both bureaucratic and political corruptions. Such power includes to have senior government officials, as well as cabinet ministers, declare their assets within 30 days after taking up their posts, every three years during their tenure, and immediately after leaving the posts.[40] The NCCC is also empowered to impound the assets of those accused of corruption to prevent them changing hands during investigations.

[39] The changes according to the new constitution, which is the national comprehensive law, will not come into effect unless organic laws which include the new *Anti-Corruption Act* (which will supercede the existing 1975 *Prevention and Suppression of Corruption and Misconduct among Civil Servants Act*), and the new *Parliament Act* (which will replace the existing *Parliament Act*) are promulgated. These organics laws are being drafted by the Senate at present as a part of the law-making process. It is expected that the organic laws will be passed by the parliament soon.

[40] Mongkol Bangprapa, 'Graft agency aims at public office-holders', *Bangkok Post*, 19 November 1999.

Another crucial power enabling the NCCC to weed out corruption among government officials is that the NCCC's suggestions must be observed. In the past, when CCC found that there were sufficient grounds to conclude that an accused official had been involved in corruption or misconduct, the case would be submitted to the Prime Minister to acknowledge and send the case to the direct boss of the suspect to take disciplinary action. However, the agency to which the suspect belonged might disagree with the CCC's suggestions, and clear the suspect of the charge. Under the NCCC's law, the agency concerned must mete out disciplinary action against the suspect if the NCCC discovers evidence of corruption.[41]

II. Corruption and Failure of Environmental Regulation

Although regulation has been a key mechanism used to protect the environment, the goals of environmental regulation cannot be achieved where corruption is involved. A central question arises: how does corruption become involved in environmental issues? For the purposes of this thesis, there are two main factors responsible for corruption: discretion and opportunities arising from environment-related projects.

A. Corruption and discretion

A dilemma for regulatory design is that discretion seems essential to relieve the stringency and rigidity of law yet at the same time, discretion provides considerable opportunities for abuse by enforcement officials, and can result in regulatory ineffectiveness. As Eugene Bardach and Robert Kagan point out, the risks involved in discretion include unpredictability, and unequal treatment, and a high risk of corruption.[42] In this context, a set of questions arises: on what basis do the authorities misuse their discretion? Why does this basis differ from one authority to another? And how does discretion end up in corruption?

In the context of enforcing environmental regulation, discretion is commonly used in ways favourable to the regulated. This can happen at all levels of the bureaucratic system. In this case, many people tend to 'give' money or other benefits to the officials

[41] Ibid.
[42] Eugene Bardach and Rober Kagan, *Going by the book: The Problem of Regulatory Unreasonableness*, 1982, at 34-5.

in power in exchange for favourable discretion given to them. This is particularly the case where resources, services, permits, or licences are limited.[43] In Thailand, where bureaucratic corruption is widespread as discussed earlier, there is a tendency for environmental enforcement to be seriously hampered by corruption, through the misuse of discretion by officials-in-charge.[44] Such misuse of discretion leads to the failure of environmental regulation in the situations discussed below.

1. Discretion at the inspection level

Most corruption cases occur at this stage in a "rent-seeking" fashion. Theodore Panayotou argues that rent-seeking corruption is facilitated by the rigid and tough language written into the laws, which carry the threat of punishment to the wrongdoers.[45] While stringent regulation makes regulators look powerful, such discretion creates an atmosphere of negotiation because the strict imposition of the regulation would appear wholly unreasonable, not only to those regulated, but often to politicians, third parties and indeed to regulators themselves (it might for example, prove sufficient to close the business entirely).[46] Regulated firms are therefore tempted to "approach" the regulators for discretion favourable to them. Clearly, these integrated factors, stringent regulation and discretion, help make the rent-seeking successful.

Given that corruption usually occurs by mutual agreement between a "giver" and a "taker", it is difficult to find hard evidence of corruption cases. However, there are some indications which "infer" unreasonableness and irregularities in the performance of officials. For example, it seems to be a common practice that inspectors call the firms before their visit. Although the reason for such prior notification cannot be conclusively stated, it might be a result of corruption or co-operation, or something more innocent such as to ensure that a meal would be prepared for them.[47]

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[43] Michael Johnston, 'Corruption, Inequality and Change', in Peter Ward, ed., *Corruption, Development and Inequality*, 1989, at 18-23.

[44] See Theodore Panayotou, 'Problems in environmental management in developing countries', in *OECD Documents: Economic Instrument for Environmental Management in Developing Countries*, 1993, at 25.

[45] Ibid. See also Eric Orts, 'Reflexive Environmental Law', in *Northwestern University Law Review*, (1995), at 1227.

[46] Cass Sunstein, 'Constitutionalism after the New Deal', *Harvard Law Review*, 1987, at 448-51. See also Eugene Badach and Robert Kagan, 1982, at 34-5.

[47] Neil Gunningham, 'Negotiated Non-Compliance: A Case Study of Regulatory Failure', *Law & Policy*, 1987, at 79.

The case of non-compliance which has occurred and continued regardless of applicable regulation and public outcry is another indication of unreasonableness and irregularities among regulators-in-charge. The Mab Ta Phut air pollution case discussed in Chapter 3 is a good example.

As in many other corruption cases, although it is difficult to find clear evidence to prove that corruption was involved in this case, the facts that the disaster had continued for over one year without any action from relevant authorities to improve the situation, and a rumour that the factories were prepared to take the officials and media abroad in order to buy their acquiescence[48], are salient indications that corruption was involved in this case in one way or another.

2. Discretion at the pre-trial level

If non-compliance is found by an inspection, the case is usually passed to a pre-trial process for investigation and prosecution. Discretion is nevertheless involved in the process at both levels.[49] Quite how this discretion will be exercised can vary dramatically from country to country. This can be illustrated by comparing the USA with Thailand.

Studies show that in the US, discretion has been used as an "incentive" to encourage compliance among regulated entities. This strategy is applicable at the investigation, prosecution and sentencing.[50] At the investigation level, the Environmental Protection Agency (EPA) has recently issued a guideline for the use of discretion in investigating environmental cases. According to the EPA's Director of Criminal Enforcement, the EPA will use its discretion in mitigation of cases where they find that the regulated

[48] 'Pollution in Mab Ta Phut', *Thai Rat*, 11 July 1997.
[49] In addition to investigation and prosecution, discretion is also embedded in the stage of sentencing. See Gregor Mcgregor, *Environmental Law and Enforcement*, 1994, at 106 and Peter Menell and Richard Stewart, *Environmental Law and Policy*, 1994, at 543 for more details.
[50] Eric Orts, at 1278-84.

entities have conducted self-monitoring, self-auditing, self-disclosure and self-correction.[51]

At the prosecution level, the Department of Justice (DOJ) has similarly issued a guideline, empowering prosecutors to consider the facts that the offenders have conducted self-auditing, self policing and voluntary disclosure of environmental violations as mitigating factors. These factors will enable the prosecutors to exercise their discretion to adopt a compliance approach instead of legalistic one.[52] The use of discretion at the prosecution level has been supported, from a different perspective, by Christine Wettach. She argues that in criminal cases, prosecutorial discretion can help protect individuals who make honest efforts to comply with the law from facing criminal liability. She addresses the US Clean Water Act (CWA) to justify her argument, adding that many conditions associated with environmental permits under CWA are relatively complex and difficult to understand and obey, thus causing regulated individuals and agencies to make errors such as miscalculation. She then concludes that the discretionary provisions under CWA which empower prosecutors to drop the cases if they consider there is no *mens rea* involved, will help distinguish good entities who committed offences without intent from the hard-headed recalcitrants who always contemplate non-compliance.[53]

Thus in the USA, considerable efforts have been made to nurture the creative and constructive use of discretion, enabling the regulatory unreasonableness implicit in the strict application of regulations, to be considerably mitigated through a clearly structured set of guidelines for the use of that discretion.

But when we turn to the use of discretion in Thailand, we find a very different picture. Certainly very considerable discretion exists in the Thai legal system. Thailand's pre-trial process is handled by police and public prosecutors. After an investigation is complete, a police investigator will hand over the case to a public prosecutor together with his suggestion as to whether the case should be prosecuted. However, the prosecutor need not comply with the police's suggestion. He is empowered to either

[51] Ibid.
[52] Ibid.
[53] Christine Wetach, 'Mens Rea and the 'Heightened Criminal Liability' Imposed on Violators of the Clean Water Act', *Standford Environmental Law Journal*, 1996, at 398-9.

agree or disagree to such a suggestion.[54] On what is police action and prosecutorial determination based? The Thai criminal procedure code stipulates that both police and prosecution have to base their suggestion and determination on evidence in the case. Yet it does not specify how convincing the evidence should be in making a suggestion and determination respectively in the case. Thus it leaves room for both agencies to use their discretion, especially when the evidence can be decided either way: prosecution or non-prosecution.

While discretion at the investigation and prosecution level can encourage voluntary compliance as discussed above in the case of the USA, on the other hand it has the potential to undermine regulatory success as well as to affect the institutions concerned, if the process is permeated with corruption. And for the reasons described in the preceding sections, such corruption is rife in the case of investigation and prosecution in Thailand. Rather than reiterating the discussion in the previous sections, the severity of corruption in the case of environmental regulation at pre-trial level can be most graphically illustrated by a study of the case of land rights reform which resulted in a collapse of the Thai government recently.

Thailand promulgated the 1975 *Land Reform for Agriculture Act*[55] to help solve the deforestation problem.[56] According to this law, the Office of Land Reform for Agriculture was established as the implementing agency whose responsibilities include allocating the rights to use public land to entitled people. Significantly, the law

[54] A Thai prosecutor is also empowered to order police to conduct further investigation if he considers the evidence in the case submitted to him is not sufficient to make a prosecution or non-prosecution order. See the Thai Criminal Procedure Code, Section 143.

[55] The main purposes of this Act were to help the farmers who did not have land to live on; to legitimise those who had encroached on the national reserve forests; and to protect the forests from future encroachment.

[56] It is widely known that deforestation has been a chronic problem in Thailand for many decades. Research found that in 1961, the forested areas were 53.33 per cent of the whole country's area. Fifteen years later, the forest has continued to decrease. Most recently, the report on the forestry situation in the year 1995 revealed that the forested areas remaining in Thailand amounted to as little as 25.6 per cent of the total land area of the country. For more detail, see Office of Environmental Policy and Planning, *Annual Report on the Environmental Quality Situation 1994*, at 188.

stipulates that only farmers who did not have the land to make a living are entitled to receive land. The farmers to whom the land rights are allocated will receive the land right certificate (known as Sor. Por. Kor. 4-01) to ensure their rights on specifically allocated lands.

However, in 1994, Mr Suthep Tueksuban, the former Deputy Minister of Agriculture overseeing the land right allocation projects, was heavily criticised by the media and the public for involving in corruption in relation to the projects.[57] The scandal came to light when the media found that among those who received land rights in Phuket[58] were fifteen millionaires whose qualifications did not meet the requirements set forth under the applicable Act.[59] This unusual practice clearly created inequality among people and was contrary to the regulatory objective.

The scandal triggered a censure debate in the parliament from the opposition parties. Not only politicians, but many people, including the media, accused Mr Suthep of corruption. The scandal became one of the major causes which resulted in the collapse of the former Prime Minister Chuan Leekpai's government. Not surprisingly, Mr Chuan had announced his resignation in the parliament before the debate was complete.

Subsequently, Mr Suthep, along with the former cabinet members who approved the land right allocation project, and three permanent land officials involved in administrative work were accused of malpractice by allocating the land rights to those

[57] Mr Suthep was also an MP from the Democrats , the same political party as Mr Chuan Leekpai, the Thai Prime Minister at the time.

[58] Phuket is a province in the south of Thailand. The province is not only a tourist destination because of its exquisite beaches, but a place which contains many lucrative natural resources such as palms, and ores. Thus, there are a number of wealthy businessmen in Phuket.

[59] The Green World Foundation, *Environmental Situation in Thailand*, at 100-10.

who were not entitled to them.[60] Moreover, the fifteen millionaires were accused of perjury by informing the government officials that they were "farmers" and did not have sufficient lands to make a living, thus being entitled to receive the land rights.

The investigations were then conducted by the police. After the cases had been handed over to the Office of the Attorney General in 1996, Dr Kanit Nanakorn, the Attorney General at the time, rendered non-prosecution orders to all offenders in all charges. He justified his non-prosecutorial order on the grounds that all the cabinet ministers merely did their job by pushing permanent officials to speed up the process in response to government policy. As for the three land officials and fifteen millionaires, the former Attorney General explained that the fifteen millionaires misunderstood that they were entitled to the land rights because they had occupied the land before submitting their applications, while the land officials just believed the statements from the fifteen millionaires and consequently, suggested that the land rights be issued to them.

The reasoning of the non-prosecution order with regard to the three land officials and fifteen millionaires drew many criticisms from the public. The millionaires had perjured themselves in making statements to the land officials that they were farmers, because they must have known that they were not. Similarly, the excuses made by the three land officials that they issued the land rights to the millionaires because they had believed their statements have also been heavily criticised. How could the officials rely on the applicants' statements without checking their qualifications as required by the law? This led to another question: what made the former Attorney General believe that the statements made by the three land officials and millionaires were true and let them go free?

[60] It is notable that Mr Suthep Tueksuban was not accused of corruption owing to lack of hard evidence on such an offence.

The media also discovered that one of the fifteen millionaires who received the land rights was Dr Kanit's sister-in-law.[61] Despite lack of hard evidence of corruption, scepticism about the basis for the non-prosecution order was such that the then Deputy Director General of the Police Department, General Salang Boonnag, lodged a complaint to the now-defunct Counter-Corruption Commission (CCC) to take action against the former Attorney General on a corruption charge. The corruption case is, at the time of writing, under the investigation of the NCCC, the new agency established under the 1997 *Constitution* to supersede the CCC in dealing with corruption, which has taken over all the corruption cases from the old agency.

3. Discretion at sentencing level

Again, the dangers of discretion in the Thai context can be highlighted by contrasting it with the position in the USA and the UK. In the USA, Collin Munro points out that the courts have been accustomed to enjoying broad discretion, associated with their extensive independence in making decisions on what sentences to impose on convicted offenders.[62] Judicial discretion however posed many problems. As a result, the US Congress has established the Federal Sentencing Commission to address the unpredictability and extensive judicial discretion which paralysed federal sentencing.[63] The commission has also been considering the issue of new environmental sentencing guidelines for organisations.[64] The new guidelines will empower the courts to use their discretion in considering environmental auditing and management as determinants to impose lenient penalties on the regulated firms.

In the United Kingdom, studies show that although the government strongly supported judicial independence and the judiciary's sentencing discretion, a number of measures to limit the judicial discretion were introduced. These included restrictions on custodial

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[61] Niyom Tiwutanon, 'Sor. Por. Kor. 4-01: the main cause of deforestation', *The Green World*, November-December 1996, at 84-86.

[62] Collin Munro, 'Judicial Independence and Judicial Functions', *Sentencing, Judicial Discretion and Training*, 1992, at 13.

[63] Jed Racoff, cited in Jason Lemkins, 'Deterring Environmental Crime through Flexible Sentencing: A Proposal for the New Organizational Environmental Sentencing Guidelines', *California Law Review*, 1996, at 312.

[64] US Sentencing Commission Advisory Panel, cited in Eric Orts, at 1281

sentences for young offenders which came into force in 1982.[65] Such measures reflected concerns about misuse of the judicial discretion.

In Thailand, many pieces of legislation empower the court to exert discretion in sentencing, but without any of the sorts of constraints that have developed in the US and the UK. The discretion bestowed in Thailand includes discretion in suspending the jail sentence. Specifically, the Thai Criminal Code provides that if the court has decided to convict the defendants for a period of not over two years, the court is entitled to commute such jail sentence to a suspension of imprisonment for a period of not over five years. This entitlement is contingent upon the defendant never having been convicted. The court must also take into account age, criminal record, behaviour, wisdom, education, health, state of mind, occupation and environment of the defendants.[66]

However, the above provision is not compulsory so the courts need not commute a jail sentence on defendants to a suspension in every case which meets the requirements stipulated in such provision. Rather, it leaves an opportunity for the courts to exercise a wide discretion. Obviously, this kind of discretion is unpredictable and given the extent of systemic corruption described in the preceding sections of this chapter, is commonly seriously misused and abused. As a result it commonly produces outcomes which are against the government policies and public opinion, and which seriously undermine regulatory effectiveness.

Again, rather than repeating the material in the previous sections on the type and extent of corruption in Thailand, we use a case study to provide a clear picture of how judicial discretion impinges on regulatory effectiveness. In June 1996, two Thais and five Koreans illegally poached and killed bears[67], which are protected animals under the 1992 *Wildlife Conservation and Protection Act*. The incident took place in a forest of Chainat.[68] Clearly, the poaching and killing of the protected wildlife were both illegal and against the Thai government's policies to protect the environment and natural

[65] Andrew Ashworth, 'The Criminal Justice Act 1991', *Sentencing, Judicial Discretion and Training*, Bangkok, 1992, at 77.
[66] See the 1956 *Thai Criminal Code*, Section 56.
[67] The reason they killed the bears was because they wanted to cut off their paws to eat with Chinese herbs. They, like some other people, believed that eating both paws mingled with such herbs would cure some illness and at the same time make them healthy. It is really tragic that they killed the bears just to eat their paws.
[68] Chainat is a province in the central region of Thailand. Most of its area is still wild.

resources. However, the Chainat provincial court, after having convicted the defendants with two years imprisonment, used its discretion to commute a jail sentence to a suspension of imprisonment, although the applicable law stated that the defendants were subject to an imprisonment of up to four years. This was despite public demand, asking the court to convict the defendants with maximum penalties.[69]

What are the judicial criteria set out to impose on defendants accused of the same charges in different cases? And what are the judicial criteria on which to award the suspension of a jail sentence to the defendants? Such criteria seem unlikely to be established because they will be against the independence of the judiciary. Clearly, the unpredictable discretion still remains to create uncertainty of regulatory enforcement. Questions also arise: how can we be sure that judicial discretion is not made on the basis of corruption? What will happen to the society if people no longer believe in the discretion and then resort to handling the cases by themselves such as by adopting "an eye for an eye" principle? Unrestricted discretion, which is susceptible to corruption, is conducive to regulatory failure, as well as social disaster.

B. Opportunities arising from development

As many scholars suggest, corruption tends to be more prevalent in developing countries.[70] One of the most important tasks of governments in many such countries is to accelerate development through the introduction of large capital-intensive projects. Most such projects involve extremely high budgets, including those related to gigantic environmental management projects.

What is the relationship between expensive projects and corruption? As Jan Tinbergen argues, the occasion may make the thief.[71] Given that political authorities are usually involved in the decision-making process of large development projects, the opportunities for corruption are great.[72] According to Henry Bosch, grand corruption occurs when large payments are made to people in power to get things done that would

[69] Chakkrit Rithmontri, 'Bears killed for paws', *Bangkok Post*, 19 August 1996.
[70] Ledivina Carino and A.T.R. Rahman, 'Negative Bureaucratic Behavior and Development: An Introduction to a Seven-Nation Research Project', at 1.
[71] Jan Tinbergen, 'Social Integrity in a New World Order', in *Coping with Corruption in a Borderless World*, at 105.
[72] See Samuel Huntington, 'Techniques of Political Graft', cited in Sakkarin Niyomsilpa, at 186-7.

otherwise be illegal. These people include politicians. In his article, Bosch argues that the most common form of corruption is the awarding of major contracts on development projects to exporting or contracting companies in developed countries who have already bribed people in power in developing countries.[73]

Thailand has experienced considerable political corruption associated with development of environmental management. Examples include the case in which the former prime minister Banharn Sillapa-archa transferred the funds for construction of wastewater and waste treatment systems, which were initially allocated to the Ministry of Science, Technology and Environment for the development of Thailand's environment, to the Department of Public Work which he also oversaw.[74] Interestingly, he did it with no regard to the applicable law which stated that the Ministry of Science, Technology and Environment controls the budgets for waste and wastewater treatment systems for every province.[75] This misconduct was one of many critical issues addressed by the opposition parties in the no-confidence debate. Eventually, Mr Banharn dissolved the parliament before the debate reached a conclusion.

The transfer of funds to an agency which is not authorised by law to receive them is undoubtedly wrong. However, the question is: was there any private gain involved? Although there was no concrete proof that Mr Banharn received any benefits from the budget transfer, it was evident that such irregularity was part of a corrupt process. This is because some time before the misconduct, he exercised his power as the Minister of Interior to transfer Mr Supol Sripan from the position of Chief of Supanburi Provincial Public Work Office to be the Director of Sanitary Engineers, Department of Public Work, the agency which controls the construction of all systems related to environment across the country. Given that Mr Supol had been working in Supanburi, which was Mr. Banharn's electorate for eight years, he was believed to have a close tie with the ex-Prime Minister.[76]

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[73] Henry Bosch, 'Growing threat of international corruption', *The Jakarta Post*, 30 September 1997.
[74] Apart from being the prime minister, Banharn oversaw the the Department of Civil Work at the same time.
[75] See the 1992 *Enhancement Act*, Section 39.
[76] Wattachak, 'Prime Minister transferred environmental fund to the Department of Civil Work', a verbatim report of the no-confidence debate against Banharn government, 20 September 1996.

Mr Supon was not the only official in the Department of Public Work whom Mr Banharn knew. Indeed, the former prime minister had very strong connections with many officials in the agency since he worked in his uncle's shop near the agency after he first left Supanburi for Bangkok at the age of seventeen. Shortly thereafter, he started his own business by purchasing chlorine from a company and reselling it to the Department of Public Work. He then sold pipes to the agency before establishing a construction company, the major work of which relied on contracts with the agency.[77] After several and various deals with the agency for a long time as noted above, he ended up having close connections with many officials in the agency. It is therefore conceivable that when Mr Banharn successfully became a politician holding a ministerial post, he preferred to control the Department of Public Work so that he could use his long-time connection with the agency to seek profits for either himself or his cliques or both.

Another corruption scandal related to development of environmental protection can be seen in the Mae Moh scrubber purchase case. Mae Moh residents alleged that irregularities were involved in the purchase of such equipment, as the Electricity Generation Authority of Thailand (EGAT) bought used scrubbers from China instead of the new ones. This resulted in excessive air pollution generated by EGAT's plants which led to fatal incident as discussed in Chapter 3.[78]

Not least, corruption scandal is also involved in an environmental management project responsible by the Ministry of Science, Technology, and Environment. In March 1999, local people in Klong Dan sub-district, Samutprakarn province lodged a complaint to the House of Senate's Local Administration Committee that the planned construction of the 22.95-billion-baht central wastewater treatment plant to be built on a 1,903 rai plot of land lacked transparency. They claimed that the purchase of such land was made in unsually high price because some parts of the land had subsided and was inundated daily by seawater and high tide. The investigation in this regard is underway at the time of writing.[79]

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[77] James Ockey, *Business Leaders, Gangsters, and the Middle Class: Societal Groups and Civilian Rule in Thailand*, at 229-30.

[78] 'Egat denies faulty components are used items from China', *Bangkok Post*, 15 October 1998.

[79] Sunthorn Pongpao, 'Water treatment project in trouble', *Bangkok Post*, 10 March 1999. See also 'Water treatment project opposed', *Bangkok Post*, 24 March 1999.

Conclusion to Part 1

The environmental problems of developing countries such as Thailand are immense, and growing rapidly. One crucially important policy mechanism to curb, and ideally halt, such degradation, is the law, and environmental regulation in particular. In the case of Thailand, such regulation was slow to develop and, as we have seen, before the 'big bang' reform of 1992, was almost entirely ineffective.

It might have been hoped that the reform of 1992, which compared to what had gone before, was far-reaching, would mark a new and important chapter in environmental protection in Thailand. As we saw in Chapter 2, that reform involved substantial institutional reorganisation, a reinforcement of the power of the National Environmental Board, the introduction of the public right to know and a greater role for NGOs, the polluter payss principle, economic incentives and the decentralisation of environmental planning.

Yet, some eight years later, the evidence is that the 'big bang' reform has achieved very little, and can be characterised as a failure rather than as a success. Air and water pollution have continued largely unabated, and the environmental and health problems they cause have continued to increase. The type, extent and severity of these problems was illustrated in Chapter 3 through a series of case studies.

The reasons for the failure of the 'big bang' reforms were the subject of Chapters 4-5. In Chapter 4, we saw that a series of inter-related circumstances and structural failures rendered most of the 1992 reforms ineffective. In part, the character of the law itself caused problems, as too did a lack of political will, the intractable nature of the economic and environmental problems in small and medium sized enterprises, and the problem of agency capture. Of particular importance were certain aspects of Thai culture, which made effective environmental policy reform more difficult. Not least, these included Thailand's authoritarian history, the influence of Buddhism and the fatalism that the rule of *karma* generates, the importance of compromise and of freedom from external constraint, and the culture of gratitude.

But above all else, an almost insuperable hurdle for environmental law reform and for environmental regulation in Thailand, is the entrenched corruption which is endemic to

the country and culture. This was the subject matter of Chapter 5. We examined the various forms of corruption in Thailand, the relationship of corruption to regulatory failure, both internationally and nationally, the particular importance of bureaucratic corruption in the Thai context, the causes of that corruption, and the economic and political factors it is related to. We saw that ineffective administration and laws related to corruption, and Thai political culture, all compounded what was already a serious and intractable problem.

Finally, we related these characteristics of corruption in Thailand generally, to the specific context of environental regulation. We demonstrated through a series of case studies how these various components that entrenched corruption so deeply into Thai culture generally, had a particular impact on environmental regulation. These case studies showed the importance of corruption in emasculating regulation at the levels of inspection, pre-trial, and sentencing.

It is against this background of the failure of environmental regulation in Thailand, and the inability of traditional command and control regulation so far to overcome certain deep-seated and entrenched problems in Thai society and culture, that we turn to examining the prospects for future policy reform. In the following, central sections of this thesis, we examine first, the potential for policy reform using instruments geared to the national level (Chapter 6) and second, the potential for instuments at the international level, to achieve effective environmental protection (Chapter 7).

Chapter 6
Domestic Strategies
in Making Thai Environmental Regulation Work

Introduction

We have seen from the previous chapters that current Thai environmental law falls far short of providing for effective environmental protection, even after the 'big bang' reforms of 1992. Indeed, the 'law in action', as it relates to air and water pollution, is still grossly inadequate to achieve the goal of environmental protection. This thesis has identified a series of economic, political and cultural impediments to the implementing effective environmental legislation in Thailand; the existence of these impediments helps to explain the current unsatisfactory situation.

With this background, what prospects are there for effective environmental protection in Thailand though regulation, broadly defined? Chapters 6 and 7 attempt to identify a series of measures, at both national and international levels, which have the potential to make a substantial improvement on the *status quo*. They seek to analyse the instruments and policies which have the most chance of success if applied to the particular economic, political, and cultural circumstances of Thailand. In doing so, the chapters draw to some extent upon the international literature on regulation and related policy instruments, and apply this literature to the particular Thai context. They also draw from the information obtained in our interviews with various stakeholders, and use this information to further substantiate our recommendations on what is most appropriate for Thailand.

Chapter 7 focuses on the international dimension, identifying a series of measures which range from international treaties, through conditions applied to government loans by international institutions, to the role of environmental management systems and ISO 14001; these show considerable promise of applying leverage and pressure to polluters in Thailand.

The present chapter focuses on the Thai domestic situation, and upon instruments and policies that could appropriately be applied at the national level. It argues that no

single policy instrument is likely to provide a total solution. All instruments have limitations and some are better suited than others to certain situations, or to some particular types of polluters. Moreover, while Thailand has been overwhelmed with so many impediments to the effective administration of policy (not least, corruption, lack of heavy penalties, and inadequate funding) it is important that the country use a number of different instruments, particularly those which are least vulnerable to implementation failure.

This chapter explores the main policy options under a series of general classifications. In doing so, it begins with educational instruments and training because there is good reason to believe that almost all other policy instruments yield better results if both the general public and particular groups, including industry, who are being asked to change their behaviour, have an adequate foundation of understanding of why environmental protection is necessary and how it might be achieved. Second, and closely related, the chapter examines the role of information, and the considerable potential of instruments such as community right to know and environmental reporting, to influence larger companies, particularly those with reputations to protect.

Third, the chapter explores the role of economic instruments such as taxes, charges, and tradable permits. While such instruments are exponentially advocated as a better alternative to command and control regulation, it argues that such instruments, for the most part, will be very difficult to implement successfully in the Thai context because they rely upon a substantial degree of effective government intervention. Examples include monitoring the emissions that are to be taxed, collecting taxes, and preventing tax evasion. Previous chapters have identified the very substantial administrative deficiencies of government: the obstacles to effective administration of economic instruments are such that these instruments tend to play a minor role in environmental policy design in Thailand. In contrast, the other mainstay of economics, a more clearly defined system of private property rights, does have the potential to play a significant role in improving environmental regulation in Thailand, notwithstanding some substantial limitations.

Fourth, the chapter explores the role of self-regulation, which involves governments providing firms, or industry associations, with the authority to regulate themselves. While this system has a number of advantages in its ideal form, it is in its infancy in

many developing countries and it remains an open question whether the many barriers to its success may be overcome.

Finally, the chapter returns to the role of command and control regulation in order to see to what extent reforms might improve the effectiveness of the current regulatory regime. Here it examines the role of regulatory flexibility, and the capacity for greater third party enforcement by environmental groups and others.

I. Environmental Education and Training

A. The need for environmental education and training: an overview

> It is too late to see dramatic improvements of environmental situation from this generation. We however should expect to see a big change from the new generation – I mean those who are now about seven years old or younger. To make this possible, we should *educate* (emphasis added) the new generation in order to let them get the sense of the environmental issue now. Besides, we must take them to see the problems in addition to learning from the books. Then they will gradually internalise the value of sound environment in their agenda which will, in turn, result in a great deal of environmental improvements.
>
> *An interview statement made by Dr Phaichitr Uathavikul, Chairman of Executive Board, Thailand Environment Institute during my fieldwork interview.*[1]

Environmental education may take many forms and may be very broadly defined. For example, according to the US *Environmental Education Act* 1970, it involves studies on the relationship between humans, the natural environment, and the man-made environment. This includes the relationship between population, pollution, natural resources and their depletion and conservation, transport, technology, planning of cities and rural areas and the surrounding environment.[2] From a different perspective, William Stapp defines environmental education as a process aimed at producing a citizenry not only capable of knowing about the environment and its associated problems, but also skilful in helping to solve these problems, and motivated to find their solutions.[3]

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[1] The interview took place on 2 March 1998.

[2] Winai Weerawatananond, *Environment and Development*, 1994, at 126.

[3] William Stapp, 'Historical Setting of Environmental Education', in James A. Swan and William Stapp, eds., *Environmental Education: Strategies Toward a More Livable Future*, cited in Poranee Natadecha, *Nature and Culture in Thailand: The implementation of CulturalEecology in Environmental Education through the Application of Behavioral Sociology*, Ed.D thesis, University of Hawaii, 1991, at 104.

Environmental education and training have the potential to change human behaviour towards the environment in a variety of ways. For example, they can help harness self-interest among the general public, and within industry, informing people and organisations of means whereby they can achieve their economic goals while also protecting the environment (so called 'win-win' outcomes). And even where win-win outcomes are not possible, environmental education and training may nurture altruism, by creating awareness of the significance of sound environment, which at least in some cases, may convince people of the need to fight for environmental conservation even when it is not in their own interest to do so. And even when other measures, such as regulation, are introduced to force people to change their behaviour, education may make these mandatory measures more acceptable by making people realise why they are necessary. Finally, environmental education and training may assist government regulators to improve their performance and gain a better understanding of the technologies necessary to mitigate environmental harm.

Environmental education is not new, but originated several decades ago. The late 1960s and 1970s saw unprecedented time and efforts spent on various programs and publications concerning the environment.[4] In North America, the celebration of Earth Day in 1970 and the enactment of the U.S. Environmental Education Act 1970 were significant events in this development. In the same era, there emerged a variety of environmental education publications and journals, including the *Journal of Environmental Education*, the *International Journal of Environmental Studies*, and *Environmental Ethics*.[5] Since that time, environmental education has developed further and has gained considerable momentum, depth, and scope.

Attempts to use environmental education to tackle environmental problems have been made not only at the national but also at the global level. For example, in 1987, UNESCO, in association with UNEP, held the International Assembly Conference on Environmental Education and Training at Moscow. The Conference agreed that the objectives of environmental education and training at the international level included

[4] Trilochan Bakshi, 'Why Environmental Education?', in Trilochan Bakshi and Zev Naveh, eds, *Environmental Education*, 1980, at 9.
[5] Poranee Natadecha, *Nature and Culture in Thailand...*", 1991, at 98-9.

creating awareness among teachers, trainers, students and trainees; creating sources of information and using it; and developing curriculum and teaching equipment.[6]

B. Thailand's current action with regard to environmental education and training

There have already been some significant developments in environmental education in Thailand upon which future reforms could build. We describe briefly current initiatives at these levels and the limitations of these initiatives. In the light of these deficiencies, we then propose additional measures and reforms best suited to the Thai context.

Like many other countries, Thailand has perceived human behaviour to be one of the major causes of environmental degradation, and has contemplated education as one of the most suitable instruments to address this problem.[7] This was a recurrent theme in my interviews with senior decision-makers. For example, according to Mr Somnuk Rubthong, Director of the Legal and Complaint Division, Pollution Control Department:

> We should create more awareness among people by means of education. The curriculum should be tailored to encourage people to have their attitude towards sound environment.[8]

Similarly, Mr Somjai Nilsittanukroh, an adviser to the Bangkok Governor (Dr Pichit Rattakul) suggested:

> The Eighth National Social and Economic Development Plan which targets human resource development provides a good opportunity to solve the environmental problem in Thailand gradually. This is because we cannot change human behaviour overnight. Rather, we have to educate people to know about catastrophe of environmental degradation and at the same time instill environmental awareness among them to change their behaviour over time.[9]

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[6] Office of Environmental Policy and Planning, *Report on Environmental Quality Situation, 1995-1996*, at 251.

[7] Office of Environmental Policy and Planning, *The National Policy and Planning on Enhancement and Conservation of the Environment 1997-2016*, 1997, at 86.

[8] The interview was conducted on 16 December 1996.

[9] The interview took place on 8 January 1997.

At present, environmental education has been included as one of the six main objectives under the National Policy and Planning on Enhancement and Conservation of the Environment 1997-2016. Environmental education and training in Thailand currently take place at three levels: at the school level, the higher education level, and the informal education level.[10]

At the school level, the objectives of environmental education include providing understanding of the interrelationship between humans and their environment; why and how environmental problems occur; and what students can do to help improve the environment.[11] Accordingly, Dr Suvit Yodmanee, regional director and representative, UNEP's Regional Office for Asia and the Pacific, suggested:

> We must prioritise environmental education at the school level as an important measure to solve Thailand's environmental problem. Education will create awareness among students who are children and youths.[12]

To what extent are these objectives currently being achieved? Thailand, like many other countries, first introduced subjects related to the environment in the 1970s, as part of the national policy on education.[13] Notwithstanding such a policy, it was not until 1987 that environmental education in Thailand really became effective after the Ministry of Education received financial and technical assistance from the United States Agency for International Development (USAID). The comprehensive plan on environmental education was introduced and subsequently has been used as a reference point in integrating this subject in the curricula of the Ministry of Education (which does not extend to higher education).[14]

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[10] The six main objectives set forth in the National Policy and Planning are:

1. Policy on natural resources.
2. Policy on prevention and eradication of pollution.
3. Policy on natural sites and cultures.
4. Policy on community environment.
5. Policy on environmental education and information.
6. Policy on environmental technology.

See Office of Environmental Policy and Planning, 1997, for more details.

[11] Kowit Varapipatana and Vanli Prasarttong-Osoth, 'Environmental Education in Countries of the Region: Thailand', in *Environmental Education in Asia and the Pacific*, UNESCO bulletin, 1981, at 195-211.

[12] Amornpot Kullawijit, Special Interview with Dr Suvit Yodmanee, *Dullapaha*, Vol 1, January-March 1996, at 23.

[13] The Thailand National Educational Scheme of 1977 states that 'the State shall undertake to inculcate the awareness of the importance of conservation of natural resources and environment as well as population education', cited in Poranee Natadecha, at 136.

[14] Winai Weerawatananond, *Environment and Development*, at 127.

However, although attempts to promote a sound environment by means of education have increased substantially, there remain difficulties in their successful implementation. These include lack of sufficient budgets and skilled teachers. Fortunately, however, some government agencies and NGOs which perceive the significance of environmental education, have helped the Ministry of Education to enhance its performance in this regard. For example, the Department of Environmental Quality Promotion has helped the Ministry of Education to establish environmental education centres at the provincial level, as well as prepare an action plan for environmental education at the national level.[15]

Interestingly, the government agencies which provide the assistance include those whose responsibility do not directly include the provision of formal education. Examples include the National Energy Bureau which has given financial assistance to the Ministry of Education to launch a project whose main objectives are to improve environmental education in schools, while the Thailand Environment Institute (TEI), an environmental NGO, has provided technical assistance.

Another important initiative was described by Dr Tongroj Onchan, President of TEI:

> Currently, we have jointly been conducting the 'Dawn Project' in association with the Ministry of Education as an operator and the National Energy Bureau as a sponsor. This is a kind of 'educational reform' which has been launched for 8 months. We have a budget of three million baht (equivalent to approximately A $ 120,000) donated by the 'blue fund', which is operated by the National Energy Bureau to fulfil this task. The project will run for three years, targeting students at all levels in 600 schools across the country.[16]

Environmental education is also important at the tertiary level. It should be however noted that although many universities have included this program in their curricula, most environmental courses merely focus on the application of science and technology to solve the environmental problem.[17] As a result, Poranee Natadecha suggests that environmental courses which focus on social science and humanities should be

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[15] See Office of Environmental Policy and Planning, *Report on Environmental Quality Situation, 1995-1996*, at 253-4 for more details.

[16] The interview was conducted on 11 March 1998.

[17] Poranee Natadecha, *Nature and Culture in Thailand: The implementation of CulturalEecology in Environmental Education through the Application of Behavioral Sociology*, at 148-9.

integrated into the school curriculum and at the same time reiterated at the university level. Given that human behaviour is at the heart of most environmental problems, addressing environmental study in the social science and humanities context could make a valuable contribution to awareness and through this, to behavioural change.[18]

As in many other countries, environmental education in Thailand also takes place outside educational institutions. So far, a variety of educational programs with regard to environmental matters have been organised by many different agencies, including NGOs. The programs are undertaken in many forms such as training courses, workshops, conferences, and seminars. Examples include the seminars in environmental law enforcement, organised by the Pollution Control Department, in which participants are the government officials whose responsibilities involve in enforcing environmental regulation; an annual conference on environmental issues held by the Thailand Environmental Institute (TEI) which aims at training a wider range of people such as government officials, academics, and NGOs; and the training workshop on law and environment, jointly organised by UNEP and the Faculty of Law, Chulalongkorn University.

C. Target groups for 'off-campus' environmental education and training

Which groups are the particular targets of environmental education and training? With regard to air and water pollution, three main groups are involved: industry, regulators, and the general public. The discussion below examines whether environmental education and training in Thailand are currently tailored towards these particular groups. If so, how are such education and training undertaken, and is there any need to reform the *status quo*?

1. Industry

Extensive research has found that industry is one of the major sources of air and water pollution in Thailand.[19] While industry contributes substantially to economic growth, it

[18] Ibid.

[19] Chatchom Akapin, *Water Law Reform in Thailand*, LL.M. thesis, Harvard Law School, May 1994 at 23-4. See also Amnat Wongbandit, 'Laws related in Wastewater Treatment from Industrial Factories', in *Dulapaha*, a Ministry of Justice Law Journal, 1996, at 112.

also contributes to accumulative pollution in the air and water.[20] Sometimes the costs of industrial pollution outweigh its positive contribution to economic health.

Can education contribute to changing industry's attitude towards its environmental responsibilities? Much can be done to fulfil this task. This includes educating business about the advantage of 'state of the art' alternatives such as ISO 14000, and clean technology. So far, various agencies have provided training for industry on these and related issues. Examples include an introduction to ISO 14000 provided to industry by the Ministry of Industry.[21] The same introduction was also recently made to the Industrial Estate Authority of Thailand by Robere & Associates, an environmental management firm.[22] The Thailand Environment Institute (TEI) also provides a number of training courses, including ISO 14000 and clean technology. Ms Peeraporn Palapleewan, project manager of the Promotion of Cleaner Technology in the Thai Industry said during my fieldwork interview:

> I am involved in supervising the Cleaner Technology (CT) project, which was designed to persuade the industry to change their behaviour....Our main objective is how to avoid waste and pollution generated from the entire process of manufacture, in other words, how to get the most efficient output. We have convinced the firms that the most efficient output is the 'real profits'....The project does not need high cost. Instead, it looks at management of the firms, which in fact means behaviour of people responsible for managing the firms
>
> After participating in the pilot project, around 90 per cent of the firms have more understanding in CT and recognise that CT can play a key role in helping the firms deal with environmental problems without impeding their growth.[23]

[20] Songpol Pollayiem, 'Criminal Measures and the Problem of Industrial Pollution', in *Dullapaha*, 1996, at 125.

[21] Interview with Ms Prima Wangwongwiroj, director of the Thai Industrial Standard Institute, on 20 February 1998.

[22] The training was undertaken on 30 January 1998 at the IEAT's Mab Ta Pud site, Rayong province. The site is a location of heavy and chemical industry.

[23] The interview was conducted on 15 January 1998.

Similarly, Dr Pongwipa Lohsomboon, project manager of Business and Environment Division, Thailand Environment Institute (TEI) pointed out:

> First, let me supplement Ms Peeraporn on the issue of cleaner technology (CT). The CT corresponds to the ISO 14001, which deals with management system of the factories... ISO 14001 is being introduced to the Thai industrial business by TEI, in association with the Ministry of Industry to reduce environmental impacts and capitals.
>
> So far, 15 firms have adopted ISO 14001.

Significantly, Thai government agencies consider environmental education so important for changing behaviour among industrial business that they usually assign their officials to educate polluting industries. This is evident from Ms Prima Wangwongwiroj, a director of the Thai Industrial Standard Institute, who suggested:

> Awareness must be created and enhanced continuously....we have to devote ourselves in disseminating this idea to the public. I often give a talk to industrial firms to let them know what the ISO 14000 and green label are all about and at the same time encourage them to turn their manufacturing practice towards the two approaches.[24]

2. Regulators

As found in the previous chapters, regulators are also responsible for environmental regulatory failure in Thailand, especially as a result of corruption, lack of sufficient personnel and insufficient budgets. Accordingly, there is a need to change their attitude and behaviour to be in accordance with sound environment policy, which in turn will help make environmental regulation work more effectively.

Currently, a number of training courses have been provided for regulators in order to help achieve the goal of law enforcement; Mr Siritan Pairojboriboon, director-general of Pollution Control Department stated during my fieldwork interview:

> Education creates awareness....we are organising two kinds of training courses. One is for the provincial governors and sheriffs to get to know their important roles in environmental protection. This includes relevant regulation and main principles. The

[24] The interview took place on 20 February 1998.

> other course is for those appointed from the province as we sometimes request the province to assign a team, consisting of approximately ten officials to attend the training course. This course will educate the trainees how to spot and inspect pollution sources at certain level.[25]

Environmental education given to regulators is so essential that it has had support from other countries, as in the case of the Bangkok Metropolitan Administration (BMA). Recently, BMA, which was one of the environmental enforcers, received assistance from the United States Environmental Protection Agency (USEPA) in the form of a training course on enforcing environmental regulation. During my fieldwork, Dr Hansa Sa-nguannoi, adviser to the Bangkok Governor, said:

> Knowing that we cannot leave enforcement out of the picture, we have been training our officials to equip them with knowledge and experiences. Currently, we have received assistance from the USEPA to organise an enforcement training rogram. The program is aimed at educating relevant government officials not only from BMA, but from many different agencies who are also involved in environmental protection in one way or another. The ultimate goal of the program is to make these officials as powerful as 'EPA cops'.[26]

What do regulators gain from the training? Not only does the training educate trainees to know the applicable laws which they are empowered to enforce, it also teaches them how to administer regulations when resources are limited. In the USEPA training mentioned above, to overcome the problem of resource limitation, it was suggested that priority should be given to violations posing the greatest harm, and that the penalty meted out must be severe enough to create a perception that it is more expensive to violate the law. In other words, they encouraged the officials to 'get a 'big bang' out of the buck'.[27]

Education and training are also important means to influence the performance of Thai regulators in a variety of agencies, and to ensure that they place a higher priority on environmental protection objectives. For example, during my fieldwork interview, Mr

[25] The interview took place on 19 January 1998.
[26] The interview took place on 26 February 1998.
[27] Wasant Techawongtham, 'Courage to do the job will overcome', *Bangkok Post*, 3 July 1998.

Chatree Chuayprasit, deputy secretary-general, Office of the Environmental Policy and Planning suggested:

> Although the 1992 *Enhancement Act* allows a provincial governor whose jurisdiction is in either pollution control area or environmental protection area shall have a plan on environmental management, a problem has however arisen as there are many different agencies working in one province. Most of these agencies think that the work as to environmental protection is not their direct job, they therefore do not pay enough attention to the job. More importantly, most of them, including decentralised agencies such as sub-district administrative organisation do not even know the concept of sustainable development, which is our ultimate goal. Thus, training must be provided to educate these people.[28]

3. The Public

For the purposes of this chapter, the public means those who do not fall into the two categories outlined above: industry and regulators. It therefore includes people in the local community, media, politicians, and people in all walks of life. The forms of school and university education discussed earlier are particularly directed at these groups.

Why is education and training for the public necessary despite the presence of environmental regulators? One must not forget that in Thailand regulators are vastly outnumbered by industry.[29] As a result, it would be naive to expect that regulators can do their job effectively without the Thai's cooperation. Dr Chokchai Aksoranan, the then president of the Federation of Thai Industry, said during my fieldwork:

> Enhancement of environmental education must continue constantly to create awareness among people in all walks of life....Let the society force them (polluting industries). It appears that those who pollute illegally will be complained about by the public.[30]

[28] The interview was conducted on 9 March 1998.
[29] See Chapter 4 for more details on the insufficient number of environmental regulators in Thailand.
[30] The interview was conducted on 16 February 1998.

Increasingly, the role of environmental education of the public has also been recognised by the authority administering the law. For example, Mr Pornthep Teichapaiboon, deputy minister, the Ministry of Science, Technology, and the Environment, pointed out that the public should be educated to have more awareness towards environmental protection[31], and Ms Krittayaporn Tappatat, and Mr Titi Jantaengpol of Industrial Estate Authority of Thailand similarly suggested:

> We should focus on educating people to have awareness in environmental issue as this will bring about public participation subsequently. We do believe that vigorous and constant participation from the public will play a significant role to help improve the state of environment in Thailand.[32]

Further to suggestions made by the respondents above, environmental education has been provided for the public in many different forms by the agencies concerned. For instance, the Bangkok Metropolitan Administration (BMA) disseminated regulations related to the environment through a radio program. In doing so, and to make the regulation more effective, BMA simplified the legal language of the regulation in order to make it easy for laypeople to understand.[33] Another example can be seen in many activities undertaken by the Department of Environmental Quality Promotion, the Ministry of Science, Technology, and the Environment. In 1994 alone, this agency disseminated a great deal of knowledge regarding the environment to the public in various forms, including television programs, radio programs, posters, brochures, and stickers; and organising many training courses and seminars.[34]

D. Shortcomings of environmental education in Thailand

Despite these initiatives, both at school, at the tertiary level, and off campus, and strategies aimed at industry, regulators and the public, much remains to be done to achieve effective education. This is against the background of recent records which show that the country's environment has been worsening.[35]

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[31] The interview took place on 11 March 1998.
[32] The interview took place on 21 January 1998.
[33] Amornpot Kullawijit, Special Interview with Dr Suvit Yodmanee, *Dullapaha*, at 23.
[34] Office of Environmental Policy and Planning, *Report on State of the Environment in the year 1994*, 1996, at 151-3.
[35] This statement was made by the former permanent secretary of Science, Technology and Environment when he was stepping down from the position. See Kanittha Inchukul, 'Disaster for Environment Predicted', *Bangkok Post*, 4 October 1998.

What is wrong with environmental education in Thailand? The most urgent problem which impedes the progress of environmental education in the country is the lack of sufficient funding for educational initiatives. For example, although environmental education was introduced in Thailand in the 1970s, it only became effective after the country received financial and technical assistance from USAID in 1987.[36] Similarly, the 'Dawn Project', which aims at providing environmental education in schools, is only successful to the extent that it is supported by the money donated by the National Energy Bureau, a government agency outside the field of education. Moreover, it also receives technical assistance from TEI. Significantly, the project is funded for three years only.[37]

This heavy reliance on external aid is perhaps surprising, given that educational improvement more generally has been a priority of the present Thai government. This is evident from the budget allocation for the year 1999, in which the Thai cabinet approved a sum of 207.4 billion baht (approximately A $ 9.4 billion) for the Ministry of Education. Remarkably, such an allocation was the highest among all ministries.[38] Ironically, only a sum of 13, 131.6 million baht (approximately A $ 596.8 million) was allocated for the Ministry of Science, Technology, and the Environment[39]: this clearly shows a lack of political will by the Thai government in improving the environmental situation. However, it must be emphasised that while education generally may be receiving substantial financial support, *environmental* education is not. Within the general Ministry of Education budget, there is no guarantee that a substantial proportion will be allocated for the specific purpose of environmental education, and if past experience is any guide, the percentage allocated to environmental education will be extremely small.

E. Suggestions for reforms

Without further action, the potential of environmental education to influence the behaviour of the next generation may never be realised. Yet the importance of doing so

[36] It should be noted that such assistance was merely limited to education at school level. See Winai Weerawatananond, *Environment and Development*, at 127 for greater details.
[37] See an interview statement made by Dr Tongroh Onchan above.
[38] 'Cabinet gives education priority in B800bn budget', *Bangkok Post*, 29 April 1998.
[39] Ibid.

is paramount. As one of my respondents, Dr Tongroj Onchan, President of TEI, emphasised:

> We must instil environmental awareness into people while they are still young. The reason is that it is not easy to change people's behaviour. Therefore, if the awareness is inculcated to the people when they are young, it will become a part of their lives. Then the environmental governance will take place spontaneously....we realise that it takes a lot of time to make people change their behaviour. Clearly, education is a crucial way to achieve this goal. We have been inspired from the way Japanese children love nature. A clear example is that the young Japanese appreciate the trees while most Thai children do not, but even pull or cut off the trees.[40]

To fulfil the task of changing human behaviour through environmental education, deepseated and arguably intractable problems relating to the lack of political will, and the cultural attributes of the Thai, will need to be addressed. These are examined below.

1. Correctness of political will

Based on the shortcomings discussed above, it is apparent that a lack of political will substantially explains inadequate budgetary support for environmental education. How can the political will towards environmental education be created? Under the democratic regime, a government is elected and it is the people who decide what kind of government they want to have.[41] If people pressured election candidates to include in their policy the enhancement of environmental education, in exchange for their votes, and monitored their performance in doing so, the situation would improve.[42] But this will only come about if people both have a commitment to a sound environment and exercise their commitment through the political system.

This is problematic for a number of reasons. First, it is the very lack of an environmental education, and the lack of an environmental education budget, which partly explains the public's lack of awareness of environmental issues. So without getting the education, they are unlikely to press the politicians to provide the education. Second, the Thai can hardly be expected to exercise their political will freely without

[40] The interview was conducted on 11 March 1998
[41] Pam Hartman, 'It all comes down to the citizens', *Bangkok Post*, 13 January 1999.
[42] Phaichitr Uathavikul, *Thailand, King Bhumibol Adulyadej The Golden Jubilee 1946-1996*, at 222.

being caught up in a vicious circle of patron-client relationships which normally influence people to vote for the politicians who have been their patrons.[43] Such political gratitude has the strong potential to influence voters to render reciprocal consequences including voting for their 'patron'. A partial, but less than satisfactory answer is offered in the section on 'cultural reform' below.

Ultimately, things will only change if the Thai exercise their political will and put pressure on the politicians to promote environmental education in exchange for their votes. But not only are the factors raised above serious impediments to this being achieved, but so also are the cultural impediments, to which we now turn.

2. Cultural Reform

As Chapter 4 revealed, Thai culture hampers the success of environmental initiatives. The Thai power orientation, the rule of karma, and an over-compromising approach, are all serious impediments. In these circumstances, it is hard to see how environmental education can be prioritised, along with other measures such as introducing new environmental technology to industry, training regulatory enforcers on relevant laws and regulations, and providing information about the harmful consequences which could stem from air and water pollution, to create awareness among the public. Of particular importance will be (i) the promotion of a civic culture, (ii) influencing perceptions about karma, and (iii) undermining the culture of compromise.

Turning first to the importance of introducing a civic culture, we found in Chapter 4 that an excessively freedom-loving trait, the culture of gratitude, regulatory capture, and corruption are extensively pervasive in the Thai way of life and all serve to inhibit the success of environmental initiatives, including education. Could the introduction of a civic culture overcome these obstacles, and promote a social interest rather than a personal one?[44]

With regard to the excessive love of freedom, which makes many Thai neglect the sense of social responsibility, a traditional belief that 'doing whatever pleases one's mind is a

[43] See Chapter 4 on the section of gratitude culture for more details.
[44] Robert Patnum, *Making Democracy Work*, 1993, at 121-85.

genuine Thai trait' should be revisited.[45] Ideally, the Thai should be educated that air and water pollution may stem from their careless activities and cause serious harm, both in the immediate vicinity and elsewhere. Means must be found to persuade them to think about the consequences of their action beyond their own interest, that is, to ensure that what they do must not cause adverse effects to the society as a whole.

But are any such means available or practicable to implement? While the general answer is negative, there are at least some glimmers of hope, in some of the activities of NGOs to educate people to become more socially responsible as to environmental protection. According to Khunying Chodchoy Soponpanich, president of the Thai Environmental and Community Development, one of the foremost environmental NGOs:

> I believe that we have to create environmental awareness among people in the first place....In our pilot project, we educated people to throw garbage into the bins. In so doing, we came up with a song saying 'No, no, don't litter. Magic eyes can see. So, throw your garbage into the bins'"[46].

As for gratitude (and regulatory capture), it is important that Thai people learn how to distinguish between personal obligation and principles. As the air pollution case in Saraburi province discussed earlier shows, none of the local people who suffered from respiratory problems have so far taken legal action against the polluting factories simply because they feel gratitude towards the factories which employed their relatives. Also, teachers who confronted the incident did not want to bring the case to justice because the factories always provided support to the schools. How can the Thai be convinced that having gratitude towards anyone should not override a social responsibility to act against the polluter's misconduct? Clearly, a change of behaviour towards a civic culture is the answer to this question.

Civic culture also has the potential to help tackle regulatory capture. As previously discussed, the problem of regulatory capture generally occurs because regulators feel

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[45] According to Dr Hansa Sanguannoi, an advisor to the Bangkok Governor:

> Thai people have a motto 'doing whatever pleases one's mind is a genuine Thai trait'. This deeply rooted behaviour has obstructed a disciplined development which is the first stage of solving environmental problems (The interview was on 9 January 1997).

[46] The interview was conducted on 9 January 1997

sympathetic towards the regulated industry.[47] Studies however show that this situation could stem from the gratitude culture of the Thai.[48] Regulators should be educated not to allow personal obligation to divert their performance in favour of those who have provided assistance to them; they should always consider the interests of society as a whole rather than their personal interests.

However, while the introduction of a civic culture would in principle do much to address some of the most serious cultural obstacles to effective environmental action, introducing such a culture would be enormously difficult to achieve, and, as discussed earlier, a major part of the problem is that the changes would be made much easier by effective education, but effective education is unlikely to come about without the changes. It may well be that there is little chance of major cultural change, at least in the short term, and that we have to look elsewhere (e.g. to harnessing the power of NGOs) rather than relying too heavily on educational changes which may be very difficult.

Turning to the notion of karma, we have seen that this teaches people to accept that what happens to them at present is a result of what they did in the past.[49] Yet people are likely to change their attitudes only if they perceive that environmental damage is the result of human activities, which could be prevented, if sufficient and appropriate care is provided.

Given that it is difficult to change people's beliefs, the best chance of shifting people's perceptions is by examples which demonstrate that to prevent environmental harm is possible. That this is a valuable strategy is evident. Dr Hansa Sanguannoi, an adviser to the Bangkok Governor said:

> Regarding our success in making Sathorn road free from dust, we have never contemplated that other roads will follow this clean pattern overnight. Rather, we want people to learn that to make a clean road is possible. We also hope that they enjoy

[47] See David Parks, *UCLA International Environmental Law and Policy*, Vol. 15 No.2, 1996/97, at 170. See also Chapter 4 for further details.

[48] Amnat Wongbandit, 'Laws Related to Factory's Wastewater Treatment', *Dullapaha*, January-March 1996, at 117.

[49] Chalinee Atthakornkowit, *An Analysis of Marketing Communications Development and Practices in Thailand from 1987-1991*, Master of Arts in Communications thesis, the University of Canberra, 1994, at 35.

> sound environment and want to improve their quality of life by means of making other roads clean in the future.[50]

A third obstacle to environmental awareness and change is the importance of compromise in Thai culture. In the Mae Moh case, for example, no one has so far brought the case to the court of justice despite its fatal consequences, and severe illness allegedly caused by pollution. It is apparent that the main reason why the victims did not pursue the case was simply because the EGAT, the polluter, admitted that the tragedy resulted from its fault. Furthermore, it also agreed to pay compensation to those whose health and assets had been affected, and at the same time to improve the pollution abatement measures such as installing dust scrubbers at its power plants, and lengthening the plants' chimneys.[51]

What will make people realise that compromise is not an effective way to deal with environmental problems? Clearly, the Thai should be encouraged to protect their rights more seriously, and to compromise less. According to Mr Pornthep Techapaiboon, deputy minister, the Ministry of Science, Technology, and Environment:

> To improve the state of the environment, Thai people should no longer stick with compromising culture, or gratitude associated with patron-client system. In other words, we need to conduct a cultural reform.[52]

Similarly, assistant professor Dr Kittisak Prokati of Faculty of Law, Thammasat University, said:

> I am of the opinion that social control emanates from education, based on people's belief that 'my rights must be protected'.[53]

Research shows that, in the case of Thailand, people's ignorance and unwillingness to protect their own rights provides greater opportunities for polluters to break the laws.[54] This is particularly the case when the number of regulators is relatively meagre.

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[50] The interview was conducted on 9 January 1997.
[51] John Baker, *Formation, Maintenance, and Operation of Environmental NGOs in Thailand*, Ph D thesis, Department of Political Science, Northern Illinois University, 1995, at 152-3. See also Sunee Mallikamarl, *Environmental Law Enforcement*, 1997, at 131-2.
[52] The interview took place on 11 March 1998.
[53] The interview took place on 10 February 1998.
[54] See Associate Professor Sunee Mallikamal's interview in Chapter 4.

Therefore there is a need to tailor education towards a civic culture, to encourage people to see environmental problems as everyone's business regardless of the direct consequences they are confronting.[55] This will in turn bring about more participation from the public which is one of the most important components to help improve the implementation of Thai environmental regulation.[56] Such participation may include reporting to the government agencies concerned when any non-compliance is found, and taking legal action against polluters.

To summarise, environmental education is a very important component of an overall environmental strategy and an important foundation for environmental regulation. Yet although some important educational initiatives have already taken place, much more is needed if the serious obstacles to environmental protection in Thailand are to be overcome. Not least, the lack of political will and certain crucial aspects of Thai culture currently impede the success of environmental education. But changing these aspects of politics and culture is very difficult and an environmentally educated public is a critical component; yet the chances of introducing more effective environmental education are very limited in the absence of political and cultural change.

So it would appear that, notwithstanding the importance of environmental education, it is unlikely in the short term to figure prominently in an environmental reform strategy. However, as other strategies work, so will the opportunities for environmental education themselves increase. For example, if an environmental information and 'community right to know' strategy is effective, this will reinforce and emphasise the importance of environmental education and also make people more receptive to it, and more demanding of it. We now explore the potential of the related but distinctive strategy of providing environmental information.

II. Disclosure of environmental information

Environmental information is potentially a crucially important means of protecting the environment and changing human behaviour. The more information related to the environment people receive, the more likely they are to espouse environmentally

[55] See M.D. Young *et al.*, *Reimbursing the Future*, 1996, at 107-8.
[56] Richard Blue 'Public Participation Priorities', *Proceedings of Environmental Priorities in Southeast Asian Nations*, 1997, at 75.

friendly behaviour.[57] Further, information deriving from such disclosure can influence local communities to monitor and negotiate with polluters regarding their industrial behaviour.[58] The information regarding industry's behaviour also empowers consumers, who may boycott the products of polluters revealed to be non-compliant.[59]

Information disclosed from industry also enables regulators to do their jobs more effectively, for example enabling them to better target the worst polluters.[60] Richard Burnett-Hall also points out that information disclosed to the public either by industry or the government, can be used to press regulatory authorities to adopt a more active policy on pollution control, as well as prosecution.[61] This was confirmed by Dr Pitsamai Eamsakulrat, manager of the Industrial Environmental Management, the Federal of Thai Industry, who said:

> The most important thing for tackling the pollution problem is information. The public must have access to information.[62]

But some of the most important information about air and water pollution is in the hands of industrial polluters, who in the past have been most reluctant to disclose that information. This raises the question: what forms of information are most important, who needs and will use the information, will it be provided voluntarily and if not what is the appropriate role for government? In this section we explore these questions by examining three main types of environmental information disclosure: community right to know; green labelling; and environmental reporting; and to a lesser extent, some specific environmental information reforms under existing Thai laws.

Community Rights to Know

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[57] See Anand Panyarachun, *Who Manages Thai Environment – Government, Business, or the Public?*, a Keynote Speech, Thai Environment Institute's Annual Conference, 3 July 1995, at 8. See also M.D. Young *et al.*, at 107-8.

[58] Carter Brandon and Ramesh Ramankutty, *Toward an Environmental Strategy for Asia*, World Bank Discussion Paper, 1993, at 37.

[59] Ibid. See also Richard Burnett-Hall, 'Environmental Hazards and Duties of Disclosure: England', in Dennis Campbell (ed.), *Environmental Hazards and Duties of Disclosure*, 1994, at 172.

[60] Ibid.

[61] Richard Burnett-Hall, in Dennis Campbell (ed.), *Environmental Hazards and Duties of Disclosure*, 1994, at 172.

[62] The interview took place on 25 December 1996.

As discussed briefly in Chapter 2, environmental regulations in many countries allow the public to have access to information related to any activity which could possibly cause damaging consequences to human health, and the environment. Such legislation is commonly referred to as 'community right to know' (CRTK).[63] The laws related to community right to know apply to (i) the disclosure of environmental information from the government to the public, and (ii) that from industry to the public. However, there are three forms of the environmental information that can be disclosed from industry to the public: mandatory environmental reporting, optional environmental reporting, and voluntary environmental reporting; so it is important to understand that only mandatory environmental reporting falls into the community right to know regime.

A. Government and disclosure of environmental information

Arguably, the government agency overseeing a polluting industry is a good source of information related to the environment as it is generally involved with the industry from the outset in providing permission to operate, monitoring, and enforcement. The importance of government undertaking this role is clear. According to Mr Dej-udom Krairith, president of the Thailand's Lawyers Association for Environmental Protection, one of many active environmental NGOs in Thailand:

> To solve this (environmental) problem, the government must provide sufficient information to people. This includes to inform them of their rights to have clean air, clean water, including the right to initiate environmental cases.[64]

However, although there are many regulations dealing with the disclosure of environmental information at present as described above, few of these are directly concerned with government disclosure about its own activities and most target industry (the principal polluters) as a prime source of information.[65] Nevertheless, a number of European countries such as the United Kingdom have made a breakthrough in introducing laws requiring government to disclose information on pollution control and chemical hazards.[66] These initiatives have subsequently engendered a number of

[63] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, 1998.
[64] The interview was undertaken on 5 January 1997.
[65] Jacquelyn Ottman, *Green Marketing*, 1993, at 53.
[66] M. Purdue, 'Integrated Pollution Control in the Environmental Protection Act 1990: A Coming of Age of Environmental Law?', *Modern Law Review*, 1991, at 538-9.

European Community directives on Freedom of Access to Information and Control of Major Hazards of Industrial Activities.[67]

In Thailand, the 1992 *Enhancement Act* has undertaken an obligation to disclose environmental information. However, such initiative has so far achieved so little. The failure of these initiatives to yield effective results has also been examined in previous chapters, and this discussion will not be repeated here. Rather, suggestions are provided later in this chapter on how to make these laws work effectively .

B. Disclosure from industry to the public (Corporate environmental reporting)

'Industrial activity is followed critically by a concerned public. Much of the public distrust is caused by industry's own lack of openness.'

A statement made by Norsk Hydro in its 1993 Annual Report.[68]

Alongside environmental information disclosed by the government, corporate environmental reporting is increasingly gaining momentum as an environmental improvement strategy. What is corporate environmental reporting? In a broader sense, it can be described as the various means by which companies disclose information on their environmental performance[69], and can take one of three forms: mandatory environmental reporting; optional environmental reporting; and voluntary environmental reporting.

1. Mandatory Environmental Reporting

In addition to undertaking a duty to disclose information themselves, governments increasingly use information disclosure as an incentive to make regulations work better.

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[67] Ibid.

[68] See Anand Panyarachun, 'Merging Business and the Environment: Three Steps to Leadership', *TEI Quarterly Environment Journal*, Jan-Mar 1995, Vol.3, No.1, at 4.

[69] Asa Skillius and Ulrika Wennberg, *Continuity, Credibility and Comparability*, The International Institute for Industrial Environmental Economics at Lund University, a report commissioned by the European Environment Agency, available on –line at http:www.lu.se/IIIEE/research/management/asa_CCC_report/html.

In particular, they require polluters to release publicly, information with regard to their environmental performance. Such information commonly concerns the use and disposal of material, especially hazardous chemicals, as well as other activities that can have adverse effects on the environment. These laws require industrial plants to provide the public with information on the quantity of substances they discharge into the environment. Examples of these laws include the Toxic Release Inventory (TRI) under the *Emergency Planning and Community Right to Know Act* (EPCRA) introduced in the United States in 1986[70], and a national pollution inventory, the contents of which are identical to those of EPCRA, introduced by Canada recently.[71] The information compulsorily disclosed is then used by investors, consumers and others in ways which put pressure on polluters to improve their environmental performance.[72]

How does this strategy work? First, polluters are required to disclose estimates of their emissions to government (and through a government information base to the public) in such a form as to facilitate environmental groups and others ranking firms in terms of their comparative pollution output. It then becomes possible for environmental groups to publish 'league tables' of the best and worst companies and, through the power of publicity, to shame the worst companies into better performance. As Neil Gunningham and Peter Grabosky argue, 'no executive likes to see their company exposed publicly at the bottom of the performance rankings'.[73] This strategy exhorts high-ranking officers of each firm to make efforts to ensure that the environmental performance of their plants complies with regulation. The equation is simple: the poor environmental performance rankings, when published, can bring about a great deal of adverse impact to the companies, ranging from decrease of customers to tougher enforcement from regulators.

Such disclosure provides a message to the public as to the likelihood of some form of environmental disaster or damage from an industry's chemical substances-related activities and usually encourages public monitoring. At the same time, realising that it

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[70] Paul Kleindorfer and Eric Orts, Information Regulation of Environmental Risks, at 1. See also Robin Bidwell , 'Business and the Environment: A Changing Agenda', *TEI Quarterly Environment Journal*, Jan-Mar 1995, Vol 3, No. 1 at 31. In this article, Bidwell states that the U.S.Toxic Release Inventory requires firms to provide information on the quantity of over three hundred specific substances which are discharged into the environment.

[71] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, 1998, at 64.

[72] Paul Lanoie, Benoit Laplante, and Maite Roy, 'Can Capital Market Create Incentives for Pollution Control?', *A World Bank Policy Research Working Paper* (PRD Working Paper # 1753), web site at http://www.NIPR.org/work_paper/nipr2/index.htm.

[73] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 64.

is being 'watched' by the public, industry strives to improve its corporate behaviour which, in turn, reduces toxic emissions.[74] In the United States, within five years of the introduction of the Toxic Release Inventory mentioned above, toxic wastes released by industrial firms were reduced dramatically.[75] This success is so commendable that it was hailed by William Reilly, the former administrator of the EPA as 'one of the most effective instruments available' for reducing toxic emissions. Mr Reilly's view was later reinforced by his successor, Carol Browner, and many others.[76] At the other end of the continuum, the TRI data have proved to be of benefit to firms in regard to financial markets. Sound environmental performance disclosed by the data will help attract more customers to buy their products, as well as to invest in the firms.[77]

In Thailand, the strategy of using environmental disclosure as a supplementary tool to help regulatory enforcement has been initiated only recently. For example, the Bangkok Metropolitan Administration (BMA) now releases information as to non-compliance of polluting firms, directly to the media, so that all details of each firm, as well as its environmental performance, are publicly exposed. A Thai newspaper recently described how the BMA is planning to take action against 18 *named* factories responsible for causing air and water pollution. These factories included Im-Huad steel furniture maker which dumped toxic waste into canals; Thip cooking oil producer which discharged wastewater and sludge into a canal; and TPI cement factory which discharged dust into the air.[78]

Industry disclosure of environmental information is also required through environmental audits stipulated in some environmental regulations. For example, the 1992 *Enhancement Act* requires the owner or possessor of the point source of pollution equipped with a polluted air system, wastewater treatment system, or waste disposal system to collect statistics and data showing daily the functioning of the system, and requires the reports thereof to be kept at the site of the point source. Also, such person must provide a report showing the functioning outcome of the system, as well as submit

[74] Carter Brandon and Ramesh Ramankutty, *Toward an Environmental Strategy for Asia*, at 37.
[75] Ibid.
[76] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 64.
[77] Asa Skillius and Ulrika Wennberg, Continuity, Credibility, and Comparability, available at http:www.lu.se/IIIEE/research/management.
[78] Poona Antaseeda, 'City to act against plants dumping waste into canals', *Bangkok Post*, 17 June 1997.

it to the local authorities where the point source is located at least once a month.[79]

Finally, Ministerial Rule No. 3, issued under the 1992 *Factory Act,* requires any factory the operation of which has potential to cause serious impact on the environment to conduct environmental auditing, and then provide relevant reports on the auditing, as well as reports on the efficiency of the systems for toxic environment prevention to the government.[80]

Towards Reform?

To summarise, while the experience of community right to know legislation in developed countries has been very positive, Thailand at present has only a very limited number of information disclosure requirements and nothing approaching the breadth and comprehensiveness of Community Right to Know legislation. This raises the question, can and should broader community right to know legislation be introduced in Thailand and are Thai culture and institutions conducive to its success?

Given that the use of mandatory information disclosure in Thailand is in its infancy, it is too soon to answer this question conclusively. However we may gain insight from a comparative study of mandatory information provision in Indonesia, a developing country whose problems are similar in many respects to those of Thailand.

As in Thailand, weak enforcement is one of the main reasons for environmental regulatory failure in Indonesia.[81] Faced with limited budgets and the growth of industry at the rate of 10 per cent annually, the country resorted to an application of information based regulation, which, unlike command and control regulation, did not rely heavily on financial and human resources from the government[82]. In particular, Indonesia's National Pollution Control Agency (BAPEDAL) in 1995 launched a program for rating and publicly disclosing the environmental performance of factories in the country. The

[79] See Section 80 of the 1992 *Enhancement Act.*
[80] See Section 8 of the 1992 *Factory Act*, and Clause 4 of the Ministerial Rule No. 3 (1992), issued under the 1992 *Factory Act.*
[81] Paulus Effendie Lotulung, *Indonesian Environmental Future*, A paper presented in the Seventh General Assembly and Conference Workshop, ASEAN Law Association, Kuala Lumpur, Malaysia, 6-10 December1995, at 2-3. See also Riyatno, *Environmental Law Enforcement and Compliance in Indonesia*, LL.M. thesis, the Australian National University, at 1.
[82] Shakeb Afsah *et al.*, *Controlling Industrial Pollution: A New Paradigm*, The World Bank's Policy Research Working Paper, October 1996, at 9.

objective of the program was to use pressure generated by public disclosure as a low-cost substitute for formal enforcement of regulations. Such pressure was anticipated to force companies not only to comply with environmental regulations but to adopt cleaner technologies, which would lead to improvements in the state of the environment.[83]

The program was officially called Program for Pollution Control, Evaluation and Rating, widely known as PROPER. It works by setting a colour rating system for informing consumers of firms' environmental performance. Under this system, five different colours are used to classify five levels of compliance. Gold is usually reserved for factories whose environmental performance is recognised at the world level. Green is given to plants whose emissions control and housekeeping procedures exceed those needed for compliance. Blue is for firms whose compliance accords to national regulatory standard. Red signifies intermediate ratings. It is given to plants which have some pollution control but fall short of compliance, while Black is given to plants which fail to make any effort to control pollution and are causing environmental harm.[84]

PROPER rated 187 plants during its pilot phase conducted in June 1995. No plant was given Gold, while five were given Green. Sixty-one plants were rated Blue, one hundred and fifteen plants were given Red, and six plants were rated Black. At this stage, plants' performance was publicly announced with the exception of those given Red and Black which were privately informed. A period of six months was given for these low-rated plants to improve their performance. PROPER rated the plants again as well as conducting a full disclosure of their performance in December 1995. It was found that 50 per cent of the Black plants, and 6 per cent of Red plants successfully upgraded their status.[85] One may conclude that public disclosure under PROPER was a successful strategy for improving industrial firms' behaviour.

In the light of the Indonesian experience in particular, it might seem that some form of community right to know legislation has very considerable potential in the Thai context. In a country where regulation is weak, where the problems of inadequate regulatory

[83] Ibid.
[84] Ibid, at 10.
[85] Ibid, at 11.

resources and corrupt regulators are endemic, the strategic use of environmental information could potentially do far more to achieve improved environmental performance of at least reputation-sensitive companies, than almost any other individual mechanism. Loss of public reputation and of public credibility, pressure from consumers and environmental groups, and, the influence which poor environmental performance has on financial markets, are very powerful pressures.[86]

Moreover, these pressures need not operate in isolation. For example, the fact, revealed by information disclosure, that some companies are polluting at alarmingly high rates, might in itself bring pressure to bear on government regulators to enforce the law more convincingly. The same information might enable them to better focus their inspections on the worst offenders. Again, various third parties (banks, insurance companies, NGOs, investors) are also empowered by this information and are likely to act upon it in ways which also give polluters incentives to improve their environmental performance.

And yet there are reasons to be cautious about the direct applicability of the Indonesian experience to Thailand and about whether government-sponsored public disclosure of industry's environmental performance, like Indonesia's PROPER, will yield the same effective results. One must not forget that the problem of regulatory failure in Thailand stems not only from weak enforcement, but from cultural and other problems as well. According to Mr Pornthep Teichapaiboon, deputy minister, the Ministry of Science, Technology, and Environment:

> Another problem is that often time we are deeply rooted in compromise culture and patronage system. These result in regulatory failure in the end. Take a case of Department of Industrial Work (DIW). DIW has a feeling that it is a parent of industrial plants because it is involved with the plants from the outset, ranging from giving permit, to inspection. As a result, it always hesitates to get tough on any firm who violates the laws. Currently, it has to ask other agencies such as Pollution Control Department to take part in enforcing the law whenever non-compliance is found.[87]

Similarly, Mr Supaporn Pukasemwarangkul, an enforcement officer, suggested:

[86] Brent Fisse and John Braithwaite, *The Impact of Publicity on Corporate Offenders*, 1983, at 246-314. See also Fiona Haines, *Corporate Regulation*, 1997, at 222.
[87] The interview was conducted on 11 March 1998.

> Where jurisdictions of DIW and my office (Harbour Department) overlap, DIW often asks us to take legal action against polluters. They justify their request that they know the polluters too well to get tough on them.[88]

Under these regulatory circumstance of capture and compromise, would an instrument such as PROPER work well? It must be remembered that PROPER uses the disclosure of rated colours as a 'carrot and stick' strategy: such disclosure serves to praise those whose environmental performance is given Gold and Green ratings, but simultaneously shames those whose performance is given Black and Red.[89] Given the extent to which many Thai regulators have been compromised by their too close relationship with those whom they regulate, it is doubtful whether DIW in particular (which has jurisdiction to oversee industrial factories and their environmental performance) would be willing to engage in the shaming component which is crucial to PROPER's success.

One must conclude that it would be no simple matter for Thailand to embrace compulsory environmental reporting. While such an approach does have considerable promise, that promise is only likely to be realised if the carriage and enforcement of a mandatory environmental reporting requirement is given to an agency which is not, by reason of its history, culture and close relationship with regulated industry, too compromised to discharge its responsibilities. Ultimately, only with considerable political will, and external support for independent verification of the reporting requirement, would it be likely to succeed in Thailand. Here, the growing role of NGOs and international markets and pressure (examined in Chapter 7) may make important contributions in serving to overcome political and cultural resistance to such measures from within Thailand.

2. Green Labelling: Optional Environmental Reporting

As environmental consciousness has increased, many consumers now prefer to buy 'environmentally friendly' goods and services.[90] However, consumers have difficulty identifying accurately which products are genuinely 'environmentally friendly' and distinguishing them from those that merely claim to be so. To resolve this problem,

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[88] The interview took place on 16 March 1998.

[89] Shakeb Afsah *et al.*, *Controlling Industrial Pollution: A New Paradigm*, The World Bank's Policy Research Working Paper, October 1996, at 11

[90] OECD, *Environmental Labelling in OECD countries*, 1991, at 12. See also Neil Gunningham and Peter Grabosky, at 65-6.

various forms of green labelling certification schemes have been introduced in a number of countries.[91]

What is green labelling, and how does it work? Green labelling is a voluntary scheme whereby a label is awarded by a third party when a product meets certain criteria. It works by harnessing consumer power to encourage manufacturers to adopt environmental protection policies throughout the manufacturing process.[92] Moreover, as far as trade competition is concerned, it is believed that green labelling can serve as an incentive for industries who want to prosper in an increasingly environmentally sensitive market. Supposedly, the manufacturers whose products have been awarded green labelling will benefit from the increasing member of products purchased by consumers. This will in turn force other manufacturers to improve their environmental performance so as to obtain the certification as well.[93]

Green labelling is gaining worldwide popularity. Examples include the European Union's Eco-label Award Scheme, which established a procedure for government certification to be awarded to environmentally friendly products. Other government-sponsored green label schemes include Blue Angel of Germany, Environmental Choice of Canada, Eco-Mark of Japan, and White Swan of Scandinavian countries.[94]

Interestingly, despite an exponential expansion of the market for green products in the USA, that country has not yet had government-sponsored eco-labelling schemes as in many European countries. Instead, the country has two non-profit organisations, Green Seal and Scientific Certification Systems, which are competing in the market for recognition.[95]

At the international level, the environmental labelling program is on the rise among OECD countries. It was introduced in 1992, and it is expected that all OECD member

[91] Eric Orts, 'Reflexive Environmental Law', at 1246.
[92] Dhira Phantumvanit, 'Linking Trade and the Environment', *TEI Quarterly Environment Journal*, Vol. 3 No. 1, Jan-Mar 1995, at 15.
[93] Green Label Secretariat Office, Thailand Environment Institute, *Green Label Project*, an introductory pamphlet (n.d.).
[94] Eric Orts, 'Reflexive Environmental Law', at 1247. Also, it should be noted that Germany is the first country which introduced this eco-label scheme in 1977. See also, Green Label Secretariat Office, Thailand Environment Institute, *Green Label Project*, for greater details.
[95] Eric Orts, 'Reflexive Environmental Law' 1995, at 1248.

countries will offer products with environmental labels in their markets in the near future.[96]

Has green labelling provided substantial incentives for manufacturers to develop more environmentally sensitive products, in order to acquire the label and in turn to attract consumers? Except for German's Blue Angel, many national-based green labelling schemes have not received full cooperation from industry because of difficulties in determination of criteria and procedures; and establishment and operation costs of labelling. Also governments have had to provide substantial assistance to several schemes in order to make them viable.[97]

Thailand and green labelling

Green labelling made its debut in Thailand in 1993 with the introduction of the Thailand Business Council for Sustainable Development (TBCSD), an environmental NGO. The scheme subsequently received support from both relevant government agencies, the Ministry of Industry, and the Ministry of Science, Technology and Environment; and many other environmental NGOs.[98]

To make this scheme work, the green labelling committee was officially established in 1994. The committee consists of 18 members, having the permanent secretary of the Ministry of Industry as the chairperson, while Thai Industrial Standards Institute (TISI) and Thailand Environment Institute are appointed as joint secretariat offices. Main responsibilities of the committee include approving a green labelling certificate for a product, which must satisfy specified criteria.[99]

It is apparent that green labelling is gaining momentum among Thai industries. The reason is that many Thai want to avoid environmental harm, and in turn, support green products. Dr Chokchai Aksoranan, then president of the Federal of Thai Industry, suggested:

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[96] OECD, *Environmental Labelling in OECD countries*, 1991, at 36.
[97] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 65-6.
[98] Green Label Secretariat Office, Thailand Environment Institute, *Green Label Project*, an introductory phamphlet (n.d.).
[99] Ibid.

> Consumers are becoming wiser. They know about adverse effects of environmental degradation. As a result, the old-fashioned industries which do not care for the environment will not be able to survive for their products cannot compete with those who protect the environment. Now many people are looking for green products.[100]

In order to obtain more details on this issue, I interviewed the persons in charge of each joint secretariat office. According to Dr Pongwipa Lohsomboon, project manager of Business and Environment Division, Thailand Environment Institute (TEI):

> The green label is a certificate awarded to any products which have very little environmental impact. So far, the green label certificates have been issued to nine firms...The concept of the green label is to encourage consumers to take part in environmental protection by means of choosing environmental friendly products. It is expected that people will go for the products the manufacturing process of which does not cause adverse effects to the environment in one way or another. In other words, it relies heavily on 'consumer power' to force the industry to integrate sound environmental management in their manufacturing process. The project has already been in operation for about four years. The first two years were spent on creating principles of the project. The last two years have been spent on producing regulations.[101]

Ms Prima Wangwongwiroj, a TISI director, said:

> There are a number of business operators interested in receiving green label at present, but only nine firms have so far received the certificate...Before the emergence of green label project, Thailand Environment Institute (TEI) conducted a survey to find out how the consumer thought about the project. It was found that many consumers were interested in green products, but they wanted the manufacturers to start first. In other words, they wanted industry to put the products in the market and they would try them. At the same time, the manufacturers were not sure if this kind of product would be needed by consumers and therefore wanted the consumers to ask for them first.[102]

[100] The interview took place on 16 February 1998.
[101] The interview took place on 15 January 1998.
[102] The interview was conducted on 20 February 1998.

While the survey mentioned above shows that Thai consumers are increasingly interested in environmentally friendly products, this in itself may not be sufficient to make such a scheme work. There are a number of problems with such schemes. First, they require a 'critical mass' of manufacturers to recognise the green labelling scheme and to obtain certification under it. Only then will the label become widely recognised by consumers and only then will consumers be provided with a 'green choice' across a wide range of products.

Second, the labelling scheme itself may be very expensive to run effectively. It is extremely difficult to rank products according to their environmental impact and a full analysis requires a detailed life cycle analysis which is complex, controversial (with regard to the value put on different characteristics) and costly.

Finally, the mere fact that consumers say they would prefer to buy green products does not mean they would necessarily do so in practice, particularly if there is any price differential in obtaining such a product. This issue is particularly important in the current Thai economic crisis. Indeed, many industries which have adopted green policy in doing business are aware of this situation, and do not sell their products at a higher price than those which are not awarded green labels. They have realised that if they do so, the chances are that customers will choose the cheaper products, as Dr Pongwipa Lohsomboon, the respondent mentioned above suggested:

> What we are worried about is that people usually prefer cheaper products. To prevent this problem, entrepreneurs whose products are awarded green label have attempted to ensure that their products are not expensive than those of others.[103]

On the positive side, it appears that industries have increasingly realised that compliance with environmental regulation is a long-term investment. Given that they will benefit from their green products gradually, it is not necessary for industries to overprice the products at present. This is confirmed by Dr Chokchai Aksoranan:

> Currently, evidence shows that sophisticated technology concerning environmental protection put in manufacturing process can help the industry have more productivity in the long term. For example, some pulp and paper businesses whose factories are

[103] The interview was conducted on 15 January 1998.

> equipped with new technology are able to reuse wastewater discharged from manufacturing process. In so doing, they have saved a lot of money for water and received the pay-back in two years.[104]

Mr Abhaichon Vacharasinthu, Assistant Vice President of C.P., a Thai-based multinational company, said:

> We do not mind spending money on expensive equipment for environmental protection. The reason is not because we think we are a large firm, but because we can get profits in the long run. People now have more awareness than those in many years ago. So if our products are environmentally friendly, we do believe that people will trust our reputation and always look for our products. Eventually, we will gain more profits than the money we have paid for environmental treatment facilities.[105]

To conclude, it is probably too early to evaluate the benefits and costs of a green labelling scheme in a country such as Thailand. It is, however, no coincidence that the small number of successful schemes operate in the most prosperous Western democracies and that green labelling has not yet taken off to any serious extent in any developing country. Given current economic circumstances and the other problems identified above, green labelling has the potential to be at best a long term strategy for Thai environmentalism.

3. Voluntary Environmental Reporting

In the past, industry has been most reluctant to disclose environmental information. A recent survey commissioned by the Business Council for Sustainable Development (BCSD) and the International Institute for Sustainable Development found that businesses in more than 30 countries are not currently providing information on environmental policies or activities to the public in general. Rather, they have merely released *some* information to particular groups closely associated with the company such as shareholders, and employees.[106]

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[104] The interview took place on 16 February 1998.
[105] The interview took place on 8 January 1997.
[106] Stephan Schmidheiny, *Changing Course*, 1992, at 94.

In any event, the public tend to distrust information which is provided from industry sources. According to Vincent Covello, the public usually tend to distrust the accuracy of industries and governments' environmental health risks information.[107] Yet at the same time companies, or at least reputationally sensitive companies, are increasingly realising that they need public trust in order to grow and prosper in the longer term, and that without trust, they risk losing their 'social license'. This realisation is strongest in relation to high-risk industries such as chemicals and is more pronounced in developed counties with environmentally sensitive populations. Nevertheless, the same pressures are growing in some developing countries too, with transnational corporations (whose image can be tarnished almost as much by disasters anywhere in the world) leading the way.

To improve their image, attempts have been made to transform from reactive to active measures with respect to information disclosure. Recently, the International Chamber of Commerce (ICC) has adopted a principle of 'compliance and reporting': to encourage business 'to measure environmental performance; to conduct regular environmental audit and assessments of compliance with company requirements, legal requirements and these principles; and periodically to provide appropriate information to the Board of Directors, shareholders, employees, the authorities and the public'.[108] This 'state of the art' disclosure of environmental information has received a positive response from BCSD, which has been encouraging its members to follow the ICC's principle.[109]

This same trend was encouraged by the Agenda 21 action program at the Earth Summit. It suggests that companies should be encouraged to 'report annually on their environmental records, as well as on their use of energy and natural resources'.[110]

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[107] Vincent Covello, 'Informing People about Environmental Health Risks: A Review of Obstacles to Public Understanding and Effective Risk Communication', in Michael Baram and Daniel Partan (eds), *Corporate Disclosure of Environmental Risks: U.S. and European Law*, 1990, at 5. Covello states that public trust and confidence can be undermined by several factors. These include perceptions: (1) that government agencies are unduly influenced by industry and inappropriately biased in favour of promoting hazardous technologies; (2) that managers and personnel in government agencies and industry are not technically competent; (3) that health and environmental protection programs have been mismanaged; (4) that experts and officials in government agencies and industry have lied, presented half truth, or made serious errors; and (5) that adequate coordination among responsible authorities is lacking.

[108] Stephan Schmidheiny, *Changing Course*, at 94-5.

[109] Ibid.

[110] Anand Panyarachun, 'Merging Business and the Environment', at 4.

As a result there is now a very significant number of companies involved in environmental reporting, not just in developed countries but wherever they have operations, and this in turn is putting pressure on local companies to do the same.

Turning specifically to the Thai situation, there is already some voluntary disclosure of environmental information from industry to the public. The Thailand Business Council for Sustainable Development (TBCSD) which was founded not long after the emergence of Agenda 21, is playing a leading role in persuading its members to publish environmental reports to the public.[111] However, given that allowing the public to know its internal affairs is a new and potentially threatening experience, such change is likely to come about only gradually. It is therefore unsurprising that only a few enterprises have already taken the TBCSD's advice so far. These include the Siam Cement Company Limited which has established an Environmental Standard Co-ordinating Committee to oversee the implementation and dissemination of information with regard to its environmental policies to the public.[112]

Perhaps we can anticipate the direction of future developments by examining the recent initiatives of one high-risk, reputationally sensitive industry: chemical manufacturing. In the aftermath of the Bhopal and Seveso[113] disasters when the chemical industry feared that it might lose its 'social licence' internationally, it made very considerable efforts both to change its image and to improve its environmental performance.[114] It did so primarily through its 'Responsible Care' program: a scheme by which chemical companies commit themselves to the improvement of their environment, health, and safety performance. Responsible Care started in Canada in 1985[115] before being

[111] Apart from environmental reporting, TBCSD is also encouraging its members to establish corporate environmental activities, and implement internal audits. See Anand Panyarachun, *TEI Quarterly Environment Journal*, Jan-Mar 1995, Vol.3, No.1, at 5 for further details.
[112] Ibid.
[113] Harry Otway, 'Risk Communication Policy in the European Communities: Background, Status, and Trends', in Michael Baram and Daniel Partan (eds), *Corporate Disclosure of Environmental Risks: U.S. and European Law*, 1990, at 27-8.
[114] Neil Gunningham, 'Environment, Self-Regulation, and the Chemical Industry: Assessing Responsible Care', *Law and Policy*, 1995, at 57-95.
[115] Peter Simmons and Brian Wynne, 'Responsible Care: Trust, Credibility,and Environmental Management', in Kurt Fischer and Johan Schot (eds), *Environmental Strategies for Industry*, 1993, at 207.

modified and adopted in the U.S. shortly thereafter. It was later introduced in Australia in 1989. It has since been adopted by many other countries around the world.[116]

Obviously, disclosure of environmental information is so important that it is included as a means to achieve the goal of commitment to community participation and consultation, which is one of the two characteristics of the Responsible Care scheme.[117] With respect to the issue of information disclosure, Responsible Care's specific codes and operating plans encompass provision of information on possible hazards, encouragement of community involvement in emergency response planning, and establishment of a regular process of positive communication.[118]

More recently, Responsible Care has received a great deal of attention from the chemical industry in Thailand. It appears that the Chemical Industry Group, the Federation of Thai Industries, is to produce Responsible Care among its members in the near future. Currently, the Chemical Industry Group is applying to be a member of the International Council of Chemical Associations (ICCA), the agency who oversees the authorisation of Responsible Care.[119] If Thailand is accepted as a member, the Thai chemical industry will disclose information on its performance voluntarily as a part of its commitment.[120]

Not least, voluntary environmental reporting overcomes the problem of captured or compromised government departments, because the information goes directly from the company to the public. Thus the problem with environmental reporting is not with the role of government but rather with the quality of the information being reported by individual companies. Until such time as environmental reporting becomes standardised, with common performance measures, it will not be possible to make serious comparisons between one company's performance and another's. And for this reason it will not be possible for environmental NGOs and others to successfully shame the poorer performers into improvement. However, rapid strides have been taken over

[116] Neil Gunningham, 'Environment, Self-Regulation, and the Chemical Industry: Assessing Responsible Care', at 62.
[117] Two fundamental characteristics of Responsible Care are establishment of codes of practices; and commitment to community participation and consultation. See Neil Gunningham, 'Environment, Self-Regulation, and the Chemical Industry: Assessing Responsible Care', *Law & Policy*, Vol. 17 No. 1, January 1995, at 62-3 for more details.
[118] Ibid.
[119] Federation of Thai Industry, *Chemical Industry Group is Planning to Adopt Responsible Care*, Press Release, at 1-2.
[120] Chote Geamsakul, *Responsible Care Initiative*, a public relations release, at 1.

the last few years to improve the quality of environmental reporting, and the time may be fast approaching where it becomes a very important policy tool both in developed and in developing countries such as Thailand.

Significantly, the forces that drive it (which are external to government) are largely independent of the cultural and political constraints identified earlier as so important in impeding other initiatives such as environmental education.

C. Other information-based approaches in Thailand

Although it has been argued that community right to know, green labelling and environmental reporting are the principal strategies for using environmental information to achieve improved environmental performance, they are by no means the only potential information-based strategies available. In the particular context of Thailand, four other specific potential reforms are at least worthy of mention. All these are intended to improve upon existing Thai legislation which, as we have seen earlier, does require disclosure of environmental information but despite this, does not deliver satisfactory results.

First, we have seen in previous chapters that although the 1992 *Enhancement Act* encompasses provisions of Environmental Impact Assessment (EIA), it does not provide an opportunity for the public to take part in the assessment process. How can the government produce an accurate assessment in the absence of input from the public, especially from those who live in the area in which the project will be located? The most obvious reform would be to include provisions for public hearings within this Act. Such provisions would ensure that the public has access to information about the projects so as to be in a position to express their views and influence project outcomes. The expression of public views could make essential contributions to the decision-making process and in particular, influence Thai government policy so that it accords more closely with the public interest.[121]

[121] See Komet Tongpinyochai, 'Legal Observation about Environmental Impact Assessment', *Chulalongkorn Environmental Law Journal*, January 1995, at 41for further details. See also Panat Tasneeyanond, 'The 1992 Enhancement and Conservation of the National Environmental Quality Act: It is time for an overhaul', *Journal of Ecology*, May-August 1998, at 36-7.

A second reform would be to remove the qualifying word 'may' under this Act, thereby removing the ambiguity as to whether government officials have discretion to allow an individual access to information. If the right to information were made explicit, one of the main objectives of the 1992 *Enhancement Act* would be substantially advanced.[122] But does removal of the word 'may' guarantee the effectiveness of this provision? According to Amnat Wongbandit *et al.*, this provision is intended to serve as a broad framework to recognise the right of an individual to have access to the information which is in the possession of the government. Many details are however needed to make this provision concrete and effective. These include questions as to who will be responsible for the expenses incurred in obtaining the information (such as a photocopy); whether an individual is entitled to appeal, if his or her application for environmental information is turned down; and whether the government official who refuse to provide the requested information is liable to any lawsuit.[123] Therefore, it is essential to enact organic laws which articulate practical methods of implementing environmental information provisions in detail, in addition to removing the word 'may' from the 1992 *Enhancement Act*.

Third, in order to make public hearing provisions work effectively, the organic laws issued under the 1992 *Enhancement Act* could be modified to facilitate such public hearings more explicitly. It would be necessary to specify when an announcement for the hearing will be made to the public; what information government has to release to the public before the hearing; what government will do with the input from the public; and how the project will be monitored as to whether it still complies with regulations after the EIA is approved.

Finally, as to the 1997 *Government Information Act*, we recommend that sanctions against government officials who refuse to disclose the requested information be included in the provisions of this law. In the absence of these sanctions, there is reason to believe that the Thai officials who have been used to holding information in their possession as confidential will be reluctant to cooperate in disclosing such information under this Act.

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[122] Anand Panyarachun, Who Manages Thai Environment – Government, Business, or the Public?, A Keynote Speech, Given to the Thailand Environment Institute's 1995 Annual Seminar, 3 July 1995, at 8.

[123] Amnat Wongbandit *et al.*, *Report on Recommendations for Laws and Regulations for Environmental Protection and Operating Mechanisms for Control and Enforcement*, submitted to Pollution Control Department, 1997, at 54-5.

D. Will disclosure of environmental information be effective in Thailand?

Although it has been argued that the provision of environmental information is a potentially powerful instrument for reducing air and water pollution, it is, like most other instruments, more suited to some situations than others, and not without its limitations. These limitations are related to three main groups concerned with air and water pollution: industry, regulators, and the public.

With regard to industry, extensive research shows that only large and well established firms operating in areas where they have a public profile, are desirous to protect their reputation for their commercial benefit. Many small and medium firms, on the contrary, do not have a reputation to protect and accordingly are not threatened by information based instruments.[124] Similarly enterprises in high risk industries such as chemicals, are likely to be more reputationally sensitive than those in low risk industries where environmental problems do not attract attention and are not an everyday concern.

In the case of regulators, there are risks that they will not use the information disclosed to them appropriately by enforcing the law against intransigent firms, particularly given the history of corruption and cultural inhibition demonstrated by certain regulators in the past. This risk can be mitigated to the extent that such information must be disclosed to the public as well, thereby facilitating transparency and accountability and creating pressure on regulators to use the information they have to enforce environmental regulation.

In essence, it is not possible for an environmental information disclosure scheme to achieve its goal in the absence of a public commitment to take environmental issues seriously. Most importantly, the scheme of information disclosure works best when the public have a commitment to environmental quality.[125] Environmental information released from either government or industry will by no means lead to regulatory success

[124] See Neil Gunningham, 'Environment, Self-Regulation, and the Chemical Industry: Assessing Responsible Care', at 63-4, 92 for more details.

[125] Phaichitr Uathavikul, 'Managing the Environment', *Thailand King Bhumibol Adulyadej, The Golden Jubilee 1946-1996*, at 222-4. The author justifies his argument that a wide gap separates public awareness from public action in Thailand.

if the public, a major stakeholder, ignores the information, and fails to put pressure on industry or to buy environmentally friendly products. Other potential roles for the public include monitoring industry's performance and reporting to the authorities concerned if any wrongdoing is found, or giving preference to environmentally friendly products such as those which are awarded green label.

Here the roles of education and information are very closely interwoven. Only if the public is educated about environmental issues, and persuaded of their importance and the need to act upon them, will information strategies such as have been outlined above, be effective.

Finally, some environmental information strategies, and in particular, community right to know, will only be effective if it is possible to break the patron-client relationship between regulators and industry described earlier in the case of the DIW. In particular, it is necessary to entrust the disclosure of corporate environmental reporting to a government agency which does not have a very close relationship with industry. As the focus of this thesis is on air and water pollution, it is suggested that the Pollution Control Department (PCD) take up this task, as indeed it has already begun to do. Such a view is endorsed by Mr Siritan Pairojboriboon, Director-General of the Pollution Control Department:

> To create more public participation, it is necessary to enhance people's right to know about anything the consequences of which may affect their health and the environment. In fact, such rights are not only recognised by the 1992 *Enhancement Act*, but also by the newly enacted Constitution.
>
> In this regard, the Pollution Control Department has provided 'hot lines' for those who want to get any information with respect to the state of the environment. So far, there has been a lot of participation from the public. Moreover, we have also provided services to give suggestions on hazardous or chemical substances by phone. People who want to know characteristics or impacts of any substances can ask for such information by phone. This service has accordingly encouraged and enabled people to participate more in environmental protection. This is evidence that education and information creates awareness, and awareness creates public participation.[126]

[126] The interview was conducted on 19 January 1998.

In summary, this chapter has argued that a variety of forms of environmental information could contribute substantially to improving air and water pollution but that some types of information (community right to know) are more potent than others (green labelling) and that some groups (high risk, publicity-sensitive industries) will be more vulnerable to this strategy than other types of industry. The chapter also referred to the considerable success of an information based strategy in Indonesia but cautioned that only if certain problems with agency co-option were overcome in Thailand would such a strategy be likely to succeed. Finally, the relationship between information based strategies and other strategies is important. The key to successful information strategies is an environmentally educated, aware, and responsive public. And such a public will only emerge in Thailand if other strategies-most notably environmental education, are successful. Once again, the case is being made for a mix of strategies rather than for promoting any single approach alone.

III. Economic Instruments

Need for economic instruments in addressing environmental problems

As the limitations of command and control regulation become increasingly apparent, so many policymakers are turning increasingly towards economic instruments, because of their potential to provide more innovative, efficient and effective solutions to many environmental problems, including the issues of air and water pollution.[127]

The starting point for economic approaches to environmental protection is the insight that many of the harmful side effects of economic activity, including pollution, can best be viewed as externalities:[128] hidden costs, which have not been taken into account in calculating the cost of the economic activity in question. Instead of bearing these costs, many polluters however externalise these costs to the public and the environment.[129] The solution, according to mainstream economic theory, is to change the rules so as to make the polluting enterprise bear the actual costs of pollution (eg pollution-abatement costs) so that, in economic terminology, those costs are internalised in the polluters' business

[127] Eric Orts, 'Reflexive Evironmental Law', at 1241-2. See also Albert Nichols, *Targeting Economic Incentives for Environmental Protection*, 1984, at 1-6.
[128] Eric Orts, 'Reflexive Evironmental Law', at 1241-2.
[129] American Nuclear Society. *et al.*, *OECD Documents: Power Generation Choices: Costs, Risks, and Externalities*, Paris, 1994, at 56

transaction costs.[130] The result will be to provide appropriate incentives for enterprises to reduce their levels of pollution in circumstances where it is cost-efficient to do so.

Not until the 1980s was this idea translated from concept into action, although the idea of economic instruments had drawn a great deal of attention from economists, regulators, environmentalists, and industry for many years. It was largely the efforts of the OECD, which perceived the potential of economic instruments and then disseminated this idea among its members, which achieved at least a partial shift in environmental policy amongst some of its members. The OECD's support, coupled with the increasing recognition of the limits of conventional command and control regulations, has resulted in greater acceptance and application of economic instruments in many Western industrial nations[131] to the extent that in 1992, James Krier could assert, with some empirical support, that economic instruments were by then regarded by many as 'the hottest growth industry in environmental law'.[132]

Thailand too, has recognised that economic instruments can significantly help to revitalise its environmental regulation, although as we will see, it has only adopted a very limited number of such instruments at this stage. Nevertheless, the more extensive use of economic tools has received support from a number of quarters, including the United Nations Environment Programme (UNEP). According to Lal Kurukulasuriya, chief of UNEP's Regional Environmental Law Programme:

> The whole world is moving away from command and control regulation. More application of economic incentives will enable Thailand to overcome its environmental problems.[133]

But which types of economic incentives have most potential to attack problems of air and water pollution in a country such as Thailand? It is this question we address in the following sections.

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[130] Thomas Schelling, 'Prices as Regulatory Instruments', in Thomas Schelling (ed.), *Incentives for Environmental Protection*, 1993, at 4-32.
[131] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 69-70.
[132] James Krier, 'The Tragedy of the Commons, Part Two', *Harvard Journal of Law & Public Policy*, 1992, at 325.
[133] The interview took place on 9 December 1996.

Forms of economic instruments

The contribution of economic instruments to environmental protection can take many forms.[134] However, given that this thesis has its focus on air and water pollution, this chapter accordingly limits its discussion to the types of economic instrument which are most suited to reducing these particular types of pollution. These are pollution charges and tax systems, property rights, tradable permits, subsidies, financial assistance, civil liability, and performance bonds.

A. Pollution Charge and Tax Systems

The pollution charge or tax systems embody the Polluter payss Principle discussed in the previous chapters[135]. The objective of charge and tax systems is to provide the necessary incentives for business to internalise the costs of pollution. Providing the charge is set at the appropriate level, industries will have an incentive either to discharge less pollution to avoid paying the charges or taxes, or to use appropriate technologies that help them reduce pollution.[136] Or in some cases it may be more efficient for a company (for example operating with capital intensive old technology) to pay the charge or tax, at least in the short term.

This approach derives from the British economist, Pigou, who suggested the imposition of taxes on pollution emissions in 1930s[137], and is known as the 'Pigouvian Approach'. Notably, this approach subsequently encompassed charge systems within its regime.[138] Under this approach the level of the tax should be based on the degree of harm caused, or in proportion to the amount of pollutant discharged from polluting activity, while calculation of the charge should be based on the use of resources, infrastructure, and services in tackling pollution.[139]

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[134] Theodore Panayotou, *Instruments of Change*, 1998, at 115. The author also states that any instruments that aim to induce a change in behaviour of economic agents, by internalising environmental or depletion cost through a change in the incentive structure that these agents face (rather than mandating a standard or a technology), qualify as economic instruments.

[135] Ibid. See also Chapter 2 for more details of the Polluter pays Principle.

[136] Amnat Wongbandit *et al.*, *Recommendations for Laws and Regulations for Environmental Protection and Operating Mechanisms for Control and Enforcement*, A report submitted to Pollution Control Department, 1997, at 257.

[137] James Krier, *Harvard Journal of Law & Public Policy*, 1992, at 325-6. Notably, Krier doubts if Pigou virtually suggested the pollution taxes. Krier uses Pigou's major treatise which implies that he actually proposes to *subsidise* (emphasis in original) pollution control to justify his scepticism.

[138] Eric Orts, 'Reflexive Evironmental Law', at 1242.

[139] Theodore Panayotou, *Instruments of Change*, 1998, at 29, 37.

Pollution charge and tax systems are among the most common economic instruments used in a wide variety of countries.[140] For example, charges on water pollution and on certain air emissions have been established in many European countries for many years.[141] Australia, France, Germany, Hungary, the Netherlands, and Poland, in particular, use effluent charges in the regulations related to water pollution.[142] In Asia, research has also found that pollution (effluent or emission) charges are the most common forms of economic instrument.[143] As for the tax system, the United States levies taxes on particular chemicals in proportion to their adverse effects on the environment, while Sweden and Germany apply different tax levels to different pollutions, for example, taxing unleaded petrol at lower rates than leaded petrol to entice motorists to switch to the former, which generates less pollution.[144]

Thailand and Polluter Charge and Tax Systems

Thailand has not yet introduced either pollution charges or taxes at the time of writing. However, the 'big bang' environmental law reform in 1992 introduced the polluter pays principle, as a result of which the country is now collecting fees for wastewater treatment, and waste disposal, as well as the administration fees for collection of garbage under the 1992 *Enhancement Act*, and the 1992 *Public Health* Act respectively.[145]

Despite the existence of fee collection under the polluter pays principle described above, the Thai government agencies concerned are actively interested in the introduction of pollution charge and tax systems For example, Dr Prasert Tapaneeyangkul, a technical adviser to the Department of Industrial Work (DIW) indicated during my fieldwork that:

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[140] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 75-7.

[141] Robin Bidwell, 'Business and the Environment: A Changing Agenda', *TEI Quarterly Environment Journal*, Vol. 3 No. 1, Jan-Mar 1995, at 30.

[142] Thailand Environment Institute and Department of Industrial Work, *Development of Economic Tools in Industrial Environmental Management*, August 1997, at 5-6,and 5-7. See also Eric Orts, 'Reflexive Evironmental Law', at 1242.

[143] Carter Brandon and Ramesh Ramankutty, *Toward an Environmental Strategy for Asia*, at 76.

[144] Environmental Research Institute, Chulalongkorn University (ERIC), 'New Dimension For Environmental Management with Economic Instruments', A paper submitted to the New Dimension For Environmental Management with Economic Instruments seminar held on 28 May 1998, at Environmental Research Institute, Chulalongkorn University, at 2-3.

[145] See Chapter 2 for greater details.

> We will introduce pollution charge as a means of creating incentives. Even those whose discharge complies with the standard will have to pay a charge, the rate of which is based on the quantity of wastewater.[146]

As a preliminary step, DIW, in association with the German government, has assigned the Thailand Environment Institute (TEI) to conduct a feasibility study on the 'application of economic instruments in managing industrial pollution'.[147] The study has suggested the DIW should introduce emission charges and pollution management fees as the economic instruments best suited to deal with pollution emanating from industrial plants.[148] Most recently, Mr Rachada Singalavanija, DIW's deputy director-general has announced that the agency will introduce emission charges and pollution management fees by the year 2001.[149]

What are characteristics of the emission charges and pollution management fees to be introduced by DIW? These two instruments differ in many aspects. For example, the emission charges will be levied on the large firms which have machinery in excess of fifty horse-power and fifty employees, or on firms whose operation may cause harmful effects to the public or the environment, while the pollution management fees are collected from plants generating a great deal of pollution regardless of their size. The emission charges will be levied at higher rates than the sum of money actually spent on pollution treatment or disposal and the proceeds will go to the government. The pollution management fees, on the contrary, will be collected according to the exact amount of money spent on pollution treatment or disposal, and a part of these fees will be returned to the plants which have not only had the systems for rehabilitation of environmental quality in place, but successfully convinced the DIW that such systems will be able to reduce waste during the manufacturing process or waste treatment or disposal systems.[150]

While the pollution charge system seems on the brink of being implemented in Thailand (as appears from the DIW's movement above), a question arises: how appropriate is an

[146] The interview was conducted on 20 February 1998
[147] Ittirit Prakamthong, 'Polluters Must Pay According to Consumption Quantity and Styles', *The Green World*, November-December 1998, at 24.
[148] Ibid.
[149] Wasant Techawongtham, 'Industries to be forced to be cleaner: Economic Incentives likely in two years', *Bangkok Post*, 1 April 1999.
[150] Ittirit Prakamthong, 'Polluters Must Pay According to Consumption Quantity and Styles', at 25.

environmental tax system to the circumstances of Thailand and how suited are taxes and charges to addressing air and water pollution in Thailand in particular? This chapter approaches this question not only by examining strengths and weaknesses of the economic approach but also through a comparative study of the use of these instruments in a country in the developing world where the charge and tax systems are in place. Here, the chapter has selected China, not only because it is a developing country, but because the country also has a problem of enforcement similar to that of Thailand.[151] However, even within the developing world, there are of course very substantial differences between individual countries and what works well in one country may yield different results in another. Accordingly, our final analysis will also take into account relevant circumstances in Thailand in assessing the ultimate value of economic instruments in that country.

The weaknesses of taxes and charges

As indicated earlier, in principle, taxes and charges, provided they are set at an appropriate level, can provide a substantial incentive for industry to discharge less pollution. However, in practice, they may be far less effective, for a variety of reasons. First, scholars suggest that many tax and charge schemes which have been implemented around the world are used by the government as means of raising revenue, rather than for improving the environmental situation.[152] The fact that the rate of charges or taxes set by governments in most countries is relatively low is consistent with this view.[153] A low rate of charges and taxes can be introduced with much less political opposition than a high rate, and allows polluters to pay with little or no difficulty, and for this reason is insufficient to encourage polluters to improve environmental performance. It does, however, enhance the government's revenue and may, notwithstanding its ostensible environmental benefits, be introduced solely or largely for this reason.

A second problem with environmental taxes and charges is that, at least in some circumstances, pollution-abatement costs may not be genuinely internalised by the industry. As Neil Gunningham and Peter Grabosky suggest, such costs may simply be

[151] Andrea Zavadaszky, 'Balancing the Legal Scales', *Asian Sustainable Development Report*, Vol 1, No 2, June-August 1994, at 28.
[152] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 76.
[153] Theodore Panayotou, *Instruments of Change*, at 30.

transferred to final customers, at least when demand is relatively inelastic.[154] In this case, industry merely pay the taxes or charges before including these payments in the product prices. If this happens, the strategy of using taxes or charges to make industry change its behaviour will fail since industry lacks motivation to improve its environmental performance.

Third, it is difficult (even if the political will exists) to set the taxes or charges at the right level.[155] As Theodore Panayotou points out, to set the correct tax, there is a need to estimate the marginal benefits and marginal costs curves to determine the optimum pollution level, which is a complex and demanding task.[156]

The final weakness of charge and tax systems is that these systems depend heavily on monitoring from the government. Thus, they inevitably necessitate considerable administration and enforcement costs.[157] This causes a concern in Thailand, which has been facing economic downturn at the time of writing. For this reason, it would be naive to rely solely on charge and tax systems to reduce air and water pollution in Thailand.

Use of pollution charge and tax systems in developing countries: China's experience

China introduced pollution charge systems in its 1982 regulation.[158] The systems' objective was to levy fees from polluting industry whose pollutant discharges exceed the limit set by the state. Fees are charged according to quantities and concentration of the pollutants released.[159] Research has also found that the revenues from pollution charges provide the second largest source of funds for environmental investments in China.[160]

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[154] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 76-7.
[155] Carter Brandon and Ramesh Ramankutty, *Toward an Environmental Strategy for Asia*, Discussion Papers, 1993, at 76.
[156] Theodore Panayotou, *Instruments of Change*, at 30.
[157] Ibid.
[158] Paul Clement-Hunt, *Thailand's Status as an Emerging Environmental Market: A Comparative Analysis of Six Asian Countries*, A paper presented at the conference Industry & Environment, 29 May 1995, at Queen Sirikit National Convention Centre, Bangkok, at 22.
[159] Shakeb Afsah *et al.*, *Controlling Industrial Pollution: A New Paradigm*, Policy Research Working Paper, 1996, at 8.
[160] Theodore Panayotou, *Instruments of Change*, at 173.

Studies conducted by the World Bank, in collaboration with China's National Environmental Protection Agency (NEPA), focusing on the water pollution levy in 29 provinces and urban regions during the period 1987-1993, reveal that the levy scheme delivered different results from place to place. More effective levies are found in urbanised and industrialised provinces, especially in the eastern coastal regions although the official levy rate set by the national government applies uniformly across China. On the basis of these findings, Shakeb Afsah *et al.* suggest that the effectiveness of the levy depends on two local factors: local valuation of pollution damage, and community capacity to comprehend and react to environmental problems in the locality.[161]

Applying charges and taxes in the Thai context

As discussed above, DIW is on the verge of introducing emission charges and pollution management fees in Thailand by the year 2001.[162] This coincides with the studies conducted by the National Economic and Social Development Board (NESDB), and the Pollution Control Department (PCD) which suggest that pollution charge and tax systems have the potential to play a dynamic role in dealing with the problems of air and water pollution in Thailand, as the polluters realise that they have to be responsible for the cost for abatement of the pollution they have generated.[163] Consistent with this, Mr Panat Tasneeyanond, the main drafter of the 1992 *Enhancement Act*, also advocates that pollution taxes and emission charges are important ways to help revitalise pollution control.[164]

Although there is evidence that taxes and charges have been applied in the developed world with considerable success as discussed earlier, and the preliminary results in China are also promising, it is by no means certain that these economic instruments will work equally well in Thailand. On the contrary, a number of characteristics of Thai

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[161] Ibid, at 9.

[162] See note 148 *supra*.

[163] Environmental Research Institute, Chulalongkorn University (ERIC), *New Dimension For Environmental Management With Economic Instruments*, A paper submitted to the New Dimension For Environmental Management with Economic Instruments seminar held on 28 May 1998, at Environmental Research Institute, Chulalongkorn University. See also, Amnat Wongbandit *et al.*, *Report on Recommendations for Laws and Regulations for Environmental Protection and Operating Mechanisms for Control and Enforcement*, submitted to Pollution Control Department, 1997, at 281.
It should be also noted that the DIW is an enforcement agency, while the NESDB is involved in environmental issues at the policy-making level, and the PCD is empowered under the 1992 *Enhancement Act* to act as a coordinator rather than as a genuine enforcer of environmental law and policy. For more details, see Ittirit Prakamthong, *The Green World*, at 25.

[164] See Panat Tasneeyanond, 'The 1992 *Enhancement Act: It's about time for overhaul*', *Journal of Ecology*, Vol. 25, No. 2, May-Aug 1998, at 38-9.

culture will make the successful introduction of economic instruments in Thailand a far greater challenge. For example, regulators may adopt an accommodative enforcement style towards industries which have provided assistance to their agencies in the light of the gratitude culture, as we have learned from the previous chapters.[165]

Alongside gratitude, the culture of individualism could also hamper the success of charge and tax systems As shown in Chapter 4, the Thai do not like to be forced, even by law.[166] This could lessen the effectiveness of the system, as charges and taxes have coercive characteristics. Finally, the lack of technological and professional sophistication of Thai regulators may make both measurement and collection a substantial challenge.

Besides, given that corruption is pervasive in Thailand as discussed in Chapter 5, there is a serious concern as to how effective the system will be, especially when regulators are empowered to impose charges or taxes on polluters. The problem of how best to limit regulatory discretion again becomes paramount.

On the other hand, as in China, the local community can play a crucial role in making charge and tax systems work effectively, and the Thai government must harness the power of the local community to help strengthen the charge, tax, and fee systems which are introduced.[167] Such measures include the provision of environmental education and information to all the stakeholders concerned as discussed earlier in this chapter.

Overall, taxes and charges could play a constructive role in enhancing environmental protection, and, taking a long-term perspective, the initiatives taken by the Thai government to introduce taxes and charges are to be welcomed. In the short term, however, the political and cultural problems described above may prove a substantial impediment to their effectiveness: taxes and charges will not be successful in isolation. More honest and expert regulators will be needed to manage the system, and this need

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[165] See Scott Christensen *et al.*, *The Lessons of East Asia: Thailand, The Institutional and Political Underpinnings of Growth*, A World Bank Publication, 1993, at 20. See also Amnat Wongbandit, 'Laws Related to Factory's Wastewater Treatment', *Dullapaha*, January-March 1996, at 117.

[166] Thinnapan Nakata and Likhit Dhiravegin, 'Social and Cultural Aspects of Thai Polity', in Suchart Prasith-rathsin, ed., *Thailand's National Development: Social and Economic Background*, 1989, at 183.

[167] See Theodore Panayotou, Todd Schatzki, and Qwanruedee Limvorapitak, 'Differential Industry Response to Formal and Informal Environmental Regulations in Newly Industrializing Economies: The Case of Thailand', A Case Study for the HIID 1997 Asia Environmental Economics Policy Seminar, *Harvard Institute for International Development*, February 1997.

will not be met in the short term. The public will have to be better informed. Furthermore, as discussed, there are many technical difficulties involved in creating an effective tax and charge system. Thailand's relative lack of experience in this area, together with the uncertainties created by an economic system which is still recovering from crisis, will complicate the introduction of the system. Only when the educational and informational initiatives create the conditions for more accountability and transparency, and more effective community groups and other NGOs (acting as a countervailing force and keeping regulators and others honest), are we likely to see a credibly effective tax and charges system.

B. Property Rights

Extensive research has found that many of the problems of resource depletion and environmental degradation are attributable to market failure[168], resulting from the absence of well-defined, secure and transferable property rights over resource or environmental assets.[169] Under these circumstances, people have no incentive to protect the resources because they do not own them.[170] Rather, they harvest as much of the resources as possible regardless of other people's interests or long-term depletion of the resource, or even the ultimate extinction of a particular species.[171] This situation has been referred to as the 'tragedy of the commons'.[172]

The property rights approach is widely proposed as a means to rectify the problem of resource overexploitation and environmental degradation.[173] The property rights approach assumes that people are self-interested and that incentives must be created to

[168] See Carter Brendon and Ramesh Ramankutty, *Toward an Environmental Strategy for Asia*, 76; Theodore Panayotou, *Instruments of Change*, 1998, at 17; and Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 70-1.
[169] Theodore Panayotou, *Instruments of Change*, 1998, at 17.
[170] M.D. Young, *et al., Reimbursing the Future: An Evaluation of Motivational,Voluntary, Price-based, Property-rights,and Regulatory Incentives for the Conservation of Biodiversity,*1996, Biodiversity Series Paper No. 9, Department of the Environment, Sport and Territories, Biodiversity Unit, Canberra.
[171] David Pearce and Jeremy Warford, *World without End:Economics, Environment, and Sustainable Development,* 1993, at 239.
[172] Hardin, Tragedy of the Common, cited in Ronald Johnston, *Nature, State and Economy: A Political Economy of the Environment*, 1996, at 134-5.
[173] See M.D. Young *et al.*, at 113 for the case of natural resources. With regard to pollution, see Terry Anderson & Donald Leal, 'Free Market Versus Political Environmentalism', *Harvard Journal of Law & Public Policy*, Vol. 15, No. 2, 1992, at 304.

harness their self-interest in the public interest. This may be achieved by creating appropriate property rights over scarce resources and allocating these to private individuals. That is, well-specified and enforceable property rights create an appropriate incentive for those holding the rights to maintain the resources so that they can maximise their profits.[174] As the scarcity prices for resource and environmental assets are internalised, a rational rights owner will not overexploit them.[175]

A vivid example in this regard could be drawn from Eric Orts's Reflexive Environmental Law. Orts suggests that if elephants are treated as a private resource capable of private ownership, then their owners will have an appropriate incentive to preserve *their* animals for future interest.[176] In contrast, when nobody owns the elephants, the experience is that their long-term preservation is not valued and they face depletion and ultimately, extinction.

The property right approach is low in administrative and transaction costs for it does not rely on government in overseeing the resources.[177] However, property rights regimes also have some limitations. In particular, they can be manipulated for political purposes, as when political incumbents take the opportunity to assign the property rights for their own political benefits, such as to reward their political supporters, or to gain more popularity with their constituencies.[178]

Thailand, air and water pollution, and the role of Property Rights

A property rights scheme has not been introduced in Thailand yet despite increasing debate on the issue.[179] However, there is considerable interest in adopting a property rights approach to help combat deforestation, but much less debate about its potential role in mitigating air or water pollution. This is understandable, because while the role property rights might play in addressing forestry issues is clearly evident, this potential

[174] Terry Anderson & Donald Leal, 'Free Market Versus Political Environmentalism', *Harvard Journal of Law & Public Policy*, Vol. 15, No. 2, 1992, at 303-5.
[175] Ibid.
[176] Ibid.
[177] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 70-1.
[178] See Theodore Panayotou, *Instruments of Change*, 1998, at 20-1 for more details.
[179] Gordon Fairclough, 'The Big Dry: Water shortage threatens Thai rice production', *Far Eastern Economic Review*, 27 January, 1994, at 25-6.

as a means of dealing with pollution is much more problematic. As regards forestry, Mr Srisuwan Kuankajorn, director of the Ecological Recovery Project said:

> In the past, the Thai government made use of forests to make money. They issued concessions to those who won the bid. Then the concessionaires could cut down the licensed forests. This brought about an idea that the forests did not belong to people, but the state, who got benefits from the forests through the giving of concession. As a result, many villagers just cut down the trees for their own benefits because they thought if they did not do so, the concessionaires would do it anyway. Clearly, there was an absence of property rights over the forests among people, resulting in uncontrollable deforestation. If people's rights over resources are well defined, they will have feelings that they are the owners of environment and natural resources which will in turn help protect them.[180]

But what is the potential of property rights in respect of pollution? With regard to the issue of air and water pollution in particular, Theodore Panayotou argues that the property rights systems are neither possible nor desirable as it is impossible to exclude any individual from using air and water.[181] However, at least in respect of water pollution, a less pessimistic view is at least credible. Terry Anderson and Donald Leal argue that property rights could help solve the problem of water pollution, on the basis of the British experience that pollution could be reduced in the United States if private fishing rights were established. They suggest that under a system of liability rules (surrogate property rights) the owner of fishing rights downstream could bring suit against an upstream polluter whose activity has damaged their fishing resources.[182] On the other hand, Anderson and Leal however concur with Panayotou that property rights are not suitable for dealing with the problem of air pollution, because its origin is usually very difficult to trace owing to uncertain air currents.[183]

For similar reasons to those articulated by Anderson and Leal, it is suggested that property rights should indeed be introduced in Thailand to help tackle the problem of water pollution despite the controversial arguments described earlier. Such an approach will increase public participation as it will serve as a means for the injured individuals living downstream to claim compensation from upstream polluters. To work successfully, however, a number of other factors must be satisfied, because the property

[180] The interview was conducted on 3 February 1998.
[181] Ibid.
[182] Terry Anderson & Donald Leal, 'Free Market Versus Political Environmentalism', at 305.
[183] Ibid.

rights regime is not a 'stand alone' solution for water pollution in Thailand. For example, it is obvious that the property rights approach relies very much on civil liability. This necessary measures must be taken to ensure that the civil liability instrument, when applied, will respond to the property rights regime effectively. Discussion on civil liability is provided later in this chapter.

However, it would be totally wrong to conclude that the property rights which help reduce water pollution in some countries will yield the same results in Thailand, given the particular cultural and political circumstances of Thailand, which can be seen in microcosm through the example of the Klity mine case discussed in Chapter 3. It will be remembered that it took the villagers 30 years to complain about the water pollution issue,[184] an illustration of the culture of compromise. Evidence shows that the mine was owned by a Democrat politician,[185] an example of the close links between politics and business and the dangers of political corruption. The villagers therefore felt reluctant to act against a politician owing to the power-oriented trait discussed in Chapter 4. Ultimately, it was support from a number of NGOs such as the Wildlife Fund Thailand, and Karen Study and Development Centre, encouraged the villagers to complain about this case.[186]

In these circumstances, other measures must be taken to ensure that the Thai will exercise any property rights bestowed upon them. These measures include environmental education and information as to the existence of the property rights, what harmful effects the water pollution can cause to living things, how the property rights could help address the problem of water pollution, if the scheme will be introduced in the country, and greater powers for NGOs to help them overcome both their cultural inhibitions and the political constraints described earlier.

C. Tradable Emission Permits

Like property rights, tradable permits are another attempt to create a 'missing' market to help address environmental problems.[187] As Theodore Panayotou points out, tradable

[184] 'Klity water still health-hazardous', *Bangkok Post*, 14 February 1999.
[185] Sanitsuda Ekachai, 'Lead mine faces rising opposition', *Bangkok Post*, 14 July 1998.
[186] Supawadee Susanpoolthong, 'Groups unite to block lead threat', *Bangkok Post*, 22 May 1998.
[187] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 71-4. Also Theodore Panayotou suggests that tradable emission permits are a means of market creation. See Theodore Panayotou, *Instruments of Change*, at 24 for greater details.

emission permits are nothing but tradable emission quotas, and are in effect, a combination of property rights and a market-based variant of a command and control permit system.[188]

How does a tradable emission permits system work? The scheme regards the 'right to discharge emissions' as a form of property. Then the government, which retains effective control of the scheme, sets an aggregate level of polluting emissions in one particular area.[189] Each firm situated in the area is allocated the level of polluting emissions it can discharge.[190] However, all industries in the area are allowed to trade such 'right to discharge emissions' among themselves, providing the overall level of polluting emissions is not exceeded.[191]

How can one be sure that participating firms will not discharge emissions over the permitted quotas? This requires government (or conceivably third-party) involvement in monitoring and policing the implementation of the scheme, and in particular in ensuring that participating firms have complied with the allocated emission quotas. If any non-compliance is found, governments will conduct enforcement in a similar manner to that used in the traditional command and control regulation.[192]

Tradable permits have the attraction of providing industries with greater flexibility to manage their business according to the circumstances. For example, if they want to increase production, they can buy the rights to discharge emissions from other firms in the same area. On the other hand, if their business is declining, the industries might want to reduce their production. In this case, they can sell their rights to discharge emissions to other firms.[193]

Another advantage of this approach is that it encourages industries to switch to sophisticated technologies which can help them reduce pollution (while productivity remains intact, or even increases), and then sell their remaining rights to discharge

[188] Theodore Panayotou, *Instruments of Change*, at 24-5.
[189] Given that command and control regulation is one of the two elements of the tradable permit system, it is inevitable that government must be involved significantly in making this system work.
[190] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 71-4.
[191] Jonathan Wiener, ' Global Environmental Regulation: Instrument Choice in Legal Context', *The Yale Law Journal*, 1999, at 715.
[192] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 71-4.
[193] Ibid.

emissions to other firms.[194] In some circumstances such a sale can make huge profits if the buying firms desperately want to increase their production and need more permits to achieve this legally, given the anticipated level of pollution discharged.[195]

But the tradable permits approach has a number of shortcomings. These include high management costs of the scheme associated with the government involvement.[196] These costs are required for recruiting qualified officials, and purchasing the necessary equipment for administration and monitoring. However, the crucial question here is: high compared to what? That is, these costs would not necessarily be larger, and might well be substantially less, than those involved in reliance on the traditional alternative to tradable permits: command and control regulation.

There is also a difficulty in determining a fair allocation of the emission permits among participating firms.[197] Such a determination could be subjective and possibly lead to the problem of unfairness given the pervasiveness of corruption and patronage in Thailand as discussed in Chapter 4. Furthermore, as government does not collect any fee from firms in exchange for allocation of the rights to discharge emissions, a problem of inequality arises when these rights are totally allocated, since new entrepreneurs are not able to obtain the free allocated rights, but have to buy them from the existing firms.[198]

It is also difficult to monitor and enforce tradable permits when the sources of pollution are mobile such as vehicles, or there are too many different point sources of pollution situated in the same area, or where pollution arises from non-point sources such as methane emissions from farms.[199] Given the attractions of tradable permits, but also their potential shortcomings, how successful have such schemes been in the past, particularly in developing countries, and how successful are they likely to be in the particular circumstances of Thailand?

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[194] Jonathan Wiener, 'Global Environmental Regulation: Instrument Choice in Legal Context', at 718.
[195] Eric Orts, 'Reflexive Regulation', at 1271.
[196] David O'Connor, 'The Use of Economic Instruments in Environmental Management: The Experience of East Asia', in OECD, *Economic Instruments for Environmental Management in Developing Countries*, 1993, at 38. See also Theodore Panayotou, *Instruments of Change*, at 24.
[197] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 71-4.
[198] Environmental Research Institute, Chulalongkorn University, 'New Dimension For Environmental Management With Economic Instruments', at 2-3.
[199] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 73.

Tradable emission permits schemes in practice: lessons for Thailand

In general, tradable emission permits schemes fall short of success. They have so far been introduced in only a few countries. For example, the system is a limited option used in the coal-fired thermal power plants industry in the United States, where the command and control approach is pervasive.[200] However, the tradable emission permits scheme is conducted under the EPA's acid rain permit trading program, which was established under the 1990 Amendments to the *Clean Air Act* to reduce sulphur dioxide emissions that cause acid rain and directly affect human health.[201] To achieve this goal, the program sets an overall cap on emissions of sulphur dioxide at a number representing a large cut in emissions. The program simultaneously allows operators of affected facilities, most of which are large electric utilities, the most prominent contributors to acid rain, to trade emissions allowances between their own facilities or other firms so as to save costs in achieving the national emissions allowances.[202]

Records show that the program has a considerable effects. During 1995 and 1996, utilities emitted approximately 30 per cent less sulphur dioxide than the program emissions allowances. Furthermore, the program helped lower the compliance costs significantly. When the reductions were achieved, the costs fell from an expected $ 4 billion per year under the previous regulation to approximately $ 2 billion.[203]

There has also been a proposal to use tradable permits to tackle the problem of greenhouse gases at the international level but this has not yet been implemented.[204] This program is called Joint Implementation (JI). Under JI, actions taken in one country can counterbalance or offset greenhouse gas emissions that originate in another country. These offsets can either be technical in nature such as upgrading equipment to improve efficiency, or biological, depending on forests or soil to store carbon.[205] According to

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[200] Carter Brandon and Ramesh Ramankutty, *Toward an Environmental Strategy for Asia*, at 77.
[201] Byron Swift, 'The Acid Rain Test', *The Environmental Forum*, Vol.14, No. 3, May/June 1997, at 17.
[202] Ibid, at 18. See also David Driesen, 'Is Emissions Trading an Economic Incentive Program?: Replacing the Command and Control/Economic Incentive Dichotomy', *Washington and Lee Law Review*, Vol. 55, No. 2, Spring 1998, at 317-8.
[203] Byron Swift, *The Environmental Forum*, Vol.14, No. 3, May/June 1997, at 17.
[204] R. Stewart and J. Wiener, 'The Comprehensive Approach to Global Climate Policy: Issues of Design and Practicality', *Arizona Journal of International and Comparative Law*, 1992, at 103-10.
[205] Jim Leslie, 'Climate Change Convention and Joint Implementation', *TEI Quarterly Environment Journal*, Vol. 3 No. 1, Jan-Mar 1995, at 8-9.

Ms Wanna Tanunchaiwatana, Chief of International Cooperation Section, Office of Environmental Policy and Planning:

> Currently, several developed countries have proposed the idea of joint implementation to be used worldwide. Joint implementation is a concept that a developed country comes to help a project in a developing country reduce greenhouse gas. After the reduction is successful, the developed country will take some shares of such reduction as its ' greenhouse gas reduction credits', while in turn enable it to emit the gas up to the amount of the credits it has got. At present, Japan is playing a leading role to have the joint implementation in operation.
>
> So far, many developing countries have strongly opposed this idea because the amount of pollution will not be reduced in the end. Instead, richer countries which have bought the rights to discharge emissions from less developed countries will keep polluting, resulting in an unchanged amount of pollution globally.[206]

It is important to note that the business sector has been actively involved in using JI. Take the case of TransAlta Corporation, a Canadian based supplier of electric and thermal energy. Realising that its business activities generate a large amount of greenhouse gases in the atmosphere, TransAtla has committed itself to finding a way to reduce the gases. Joint Implementation is one of its options to achieve such a goal.[207]

As for developing countries, although the World Bank presumes that more of these countries may adopt the tradable permit system in the future, records show that there is little well-documented evidence on their implementation of the system at present.[208] However, one of the most important experiments with tradable permits in developing countries has been conducted in Poland, which had its first demonstration project on tradable industrial emissions implemented in Chorzow in July 1991. Two enterprises have participated in this pilot project, Steel Mill Kosciuszko, and the Power Plant Chorzow, both of which are heavy polluters. Under this project, the regional administrator would issue an emission permit for the Power Plant, which would use a combination of control technology and emissions reduction credits (acquired from the Steel Mill) to meet an ambient standard. How did the Steel Mill have emissions credits

[206] The interview took place on 16 January 1998.
[207] Jim Leslie, 'Climate Change Convention and Joint Implementation', at 8.
[208] The World Bank, *Greening Industry: New Roles for Communities, Markets, and Governments*, A World Bank Policy Research Report, 2000, at 50.

left for the Power Plant to use? An external subsidy drawn from regional environmental funds was provided for the Steel Mill to restructure its environmental management which in turn improves its pollution level. As a result of this project, the city's air quality has improved significantly.[209]

Kasakhstan is another developing country which has adopted an emissions trading permit system to help improve a persistent air quality problem facing the city of Almaty. This is because the existing air quality control schemes which include technology-based normatives and non-compliance charges have proved to be insufficient to reduce air pollution as a result of high compliance costs.[210] Under the 'cap-and-trade' program, the city government allocate a five-year stream of emission allowances to1200 firms The initial allocation for each facility will be based on its actual emissions in 1991 and 1994. The aim of this program is to reduce air pollution by 7-10 per cent annually. To achieve this goal, firms will be required to operate within their emission allowances or purchase additional permits from other firms if they want to increase production. Simultaneously, firms that succeed in reducing their emissions by more than 7 per cent a year would be allowed to deposit the surplus allowances for future use, (up to three years), or to sell them to other firms.[211]

How do small firms which usually cannot afford the expensive technologies comply with the emission-reduction requirements? To encourage compliance, these firms are given access to the capital of the air credit buyers to invest in sophisticated pollution control equipment, as well as to create sellable assets. Given that the program is still in the stage of planning, no outcome is available at the time of writing.[212] In Thailand, so far this approach has not been adopted, although it has aroused the interest of some important stakeholders in the environmental area. As Mr Siritan Pairojboriboon, then director-general of the Pollution Control Department pointed out in an interview:

> We are thinking of introducing tradable permits in environmental management. Unfortunately, this is still a concept at the moment due to lack of applicable law.[213]

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[209] Thodore Panayotou, *Instruments of Change*, 1998, at 175-6.
[210] Ibid, at 26-7.
[211] Ibid.
[212] Ibid.
[213] The interview was conducted on 19 January 1998.

According to Dr Prasert Tapaneeyangkul, technical adviser of the Department of Industrial Work,

> Concept of tradable permit is still unclear in Thailand. However, our expert committee is studying this concept to apply to the existing firms which are expanding their businesses. In so doing, the committee is looking at carrying capacity of the designated area in which firms are allowed to trade off their pollution with each other.[214]

To further assess the potential of this approach to Thailand, a number of studies funded by the government agencies have been undertaken in this regard. Amnat Wongbandit *et al.*, who conducted the research for the Pollution Control Department suggest that tradable permits should be introduced in Thailand because such permits might prove an efficient way of forcing polluting enterprises to internalise the external costs in pollution.[215] Obviously, this coincides with the polluter payss principle. Furthermore, it is concluded that the management costs associated with government involvement, would be less than those incurred in pollution charge and tax systems (which the researchers also suggest they be introduced in Thailand).[216]

The other study was funded by the National Economic and Social Development Bureau (NESDB). The Environmental Research Institute, Chulalongkorn University, which conducted this study, produced separate suggestions for air and water pollution. With regard to air pollution, researchers suggest that tradable permits should not be introduced as the system could cause unfairness among industries since those who come later have to buy the permits, while the existing firms get the allocated rights to discharge emissions free of charge. On the other hand, the researchers suggest that tradable permits should be used (along with charge and tax systems) to help address the problem of water pollution, at least in circumstances where there is no central wastewater treatment available. In this case, tradable permits provide flexibility, enabling firms to adjust their business according to the circumstances, such as to increase or decrease their productivity.[217]

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[214] The interview was undertaken on 20 February 1998.

[215] Amnat Wongbandit *et al.*, *Report on Recommendations for Laws and Regulations for Environmental Protection and Operating Mechanisms for Control and Enforcement*, submitted to Pollution Control Department, 1997, at 281. This coincides with the OECD report. See OECD, *International Economic Instruments and Climate Change*, at 14 for more details.

[216] Ibid.

[217] Environmental Research Institute, 'New Dimension For Environmental Management With Economic Instruments', at 6-3.

Despite considerable interest in tradable permits among government agencies, a central question arises: is the tradable emissions approach suitable for Thailand? A tradable permits regime can only work when governments set an overall level of emissions which firms can discharge, including an allocated level for each firm. Such conditions potentially exist in Thailand, at least within the confines of the designated areas called industrial estates, which are administered by the Industrial Estate Authority of Thailand (IEAT), a state enterprise.[218]

What role can the IEAT play in administering a tradable permits scheme and why do firms have to listen to the IEAT? It is important to note that the agency is both regulator and industrial investment promoter. Hence, it is authorised to set overall emissions allowances, as well as to allocate the emissions level which each firm can discharge and to monitor the firms' performance.[219] Of course, firms do not have to locate their plants within the IEAT's industrial estates, but may choose to do so because it provides a 'one-stop service' to industry. This ranges from coordinating permit granting, to providing necessary facilities for doing business, including environmental treatment systems.[220]

Despite industries' willingness to locate their plants within IEAT's sites, and obligations to comply with environmental management systems provided by IEAT as discussed above, it would be naive to assume the success of tradable permits from these facts alone. Indeed, it is uncertain how effectively the IEAT will perform as a regulatory body, given the number of factors that could hamper its success: factors such as political interference, corruption, lack of sophisticated equipment for monitoring, and lack of skilful inspectors. Certainly a number of agency insiders including Ms Krittiyaporn Tappatat, and Mr Titi Jantaengpol, IEAT's scientists, pointed out in my fieldwork interviews that the agency is not ready to establish a tradable permits scheme as it does not have the on-line monitoring system necessary for the scheme.[221] Nevertheless that while it might be premature to introduce tradable permits just yet, in the longer term the IEAT provides a good pilot scheme through which to experiment

[218] Panat Tasneeyanond, *Summary of the 1992 Enhancement and Conservation of the National Environmental Quality Act*, (n.d.) at 17-8.
[219] Ibid.
[220] Interview with Dr Somchet Tinnapong, the IEAT's governor, and Ms Kasemsri Homchuen, director of the IEAT's Environmental and Safety Control Department on 25 December 1996.
[221] The interview was conducted on 21 January 1998.

with tradable permits in the Thai context and to determine the limits of their applicability. It is here that in the future, with additional capabilities such as on-line monitoring, tradable permits have the greatest likelihood of success.

Although Thailand has the potential to introduce the tradable permits system to help reduce air and water pollution, it should not rely on the scheme as its sole policy; other measures must be used at the same time. These include education and training for the IEAT's inspectors, and provision of the sophisticated equipment necessary for monitoring the scheme. Environmental education and disclosure of information must be provided to the public constantly, to harness the public power to force government inspectors to do their job seriously.

D. Subsidies

A subsidy is the another kind of fiscal instrument[222] distinct from the tax and charge systems discussed earlier, and functioning differently from such systems. A subsidy aims at providing industries with financial assistance as an incentive to improve their environmental behaviour.[223] More specifically, these financial subsidies usually involve tax concessions which could take various forms These include tax deductions on any expenses related to environmental improvements such as mine site remediation; or tax exemptions for those who use environmentally friendly products, such as motorists whose cars have catalytic converters (who could be temporarily exempted from car registration fees)[224]; and lower tax rates on preferred products or materials, such as unleaded petrol.[225]

Subsidies have been well recognised internationally. Records show that all OECD countries and a number of Asian countries such as India, Korea, the Philippines, Singapore, and Taiwan are all dependent upon subsidies to attain the goal of their environmental policy.[226]

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[222] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 77-8.
[223] Theodore Panayotou, *Instruments of Change*, at 32.
[224] Environmental Research Institute, Chulalongkorn University, 'New Dimension in Managing the Environment with Economic Instruments', 28 May 1998, at Chulalongkorn University, at 1-9.
[225] Theodore Panayotou, *Instruments of Change*, at 33.
[226] Carter Brandon and Ramesh Ramankutty, *Toward an Environmental Strategy for Asia*, World Bank Discussion Papers, 1993, at 77.

Subsidies have both advantages and disadvantages. With regard to advantages, subsidies provide opportunities for the industry which otherwise cannot afford the costs of reducing pollution to do so.[227] On the other hand, some particular kinds of subsidies such as tax concessions on expenses related to environmental improvements also provide benefits to firms which normally can afford the costs of pollution reduction. This is to encourage these firms to continue their environmentally friendly practice.[228]

As for weaknesses, subsidies have the potential to induce new entrants into the industry, posing a serious threat that more pollution will occur. Moreover, subsidies deprive the government of considerable revenue it is otherwise supposed to receive.[229] Of equal importance, subsidy schemes violate the polluter pays principle as the costs of reducing pollution will fall on the taxpayers instead of the polluters.[230]

Why are financial subsidies popular among many governments despite their weaknesses? According to Theodore Panayotou, governments still use financial subsidies for two reasons. First, these subsidies are often hidden from public scrutiny in that it is not immediately obvious that they serve to take money out of the government's coffers. Second, government can claim to industry that financial subsidies enable them to improve environmental performance without reducing business competitiveness.[231] In addition, governments could use the provision of financial subsidies as a justification that they have done their jobs in promoting environmental quality. Disappointingly, as this discussion demonstrates, many governments base their policy and action regarding economic instruments on politics rather than the potential of the best economic instruments to address environmental problems.[232]

Thailand and subsidies

As described in the previous chapters, the 1992 *Enhancement Act* also introduces financial subsidies as one of the incentives for polluters to change their behaviour towards the environment. Under this approach, any polluter who is required by law to

[227] Theodore Panayotou, *Instruments of Change*, at 32.
[228] See Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 77-8.
[229] Ibid.
[230] Theodore Panayotou, *Instruments of Change*, at 32.
[231] Ibid, at 33.
[232] See Carter Brandon and Ramesh Ramankutty, *Toward an Environmental Strategy for Asia*, at 77 for more details.

have air pollution and wastewater treatment systems is entitled to apply for a reduction of import duties on the equipment or materials related to these systems.[233]

Studies however show that financial subsidies in the form of import duty reduction have not received much attention from industry despite the 95 per cent reduction.[234] What makes this kind of subsidy unattractive? In practice, the reduction of import duties does not occur immediately upon the arrival of the imported equipment or materials. Rather, an importer has to make full payments for the duties first, before obtaining the rebate after the government is satisfied from inspection that the systems have been installed.[235]

To the extent that subsidies are justified, a more attractive strategy than the present one is required to induce industry to take advantage of such subsidies. Specifically a reduction of duties should be designed to come into effect immediately upon the arrival of imported equipment or materials. However, after this 'carrot' approach is given to industry, the 'stick' one, that is, tough enforcement must be used if it is found that the industry does not instal the imported equipment, or does not operate the equipment after it is installed.[236] This is to ensure that polluters use privileges granted under subsidies for the sake of air and water quality.

Notably, Thailand has also had the other kind of financial subsidies in the form of lower tax rates on preferred product. In 1991, the Thai government introduced unleaded petrol to help improve air quality.[237] Despite some hurdles such as the relatively high cost of manufacture, and public concern as to whether unleaded petrol is compatible with existing car engines, the government lowered taxes on this kind of petrol; as a result vendors were able to sell unleaded petrol at a lower price than leaded.[238] Not surprisingly, most people switched to the unleaded petrol. After people had become familiar with unleaded petrol for five years, the government totally abolished leaded petrol from the market in 1996.[239] This experiment can be regarded as a success in that the subsidy was used as a 'circuit breaker' to induce the population to change their

[233] See Chapter 2 for more details of the financial subsidies introduced in the 1992 *Enhancement Act*.
[234] Amnat Wongbandit *et al.*, *Report on Recommendations for Laws and Regulations for Environmental Protection and Operating Mechanisms for Control and Enforcement*, at 280.
[235] Ibid.
[236] Ibid.
[237] Office of Environmental Policy and Planning, *Report on Environmental Situation 1995-1996*, 1997, at 110.
[238] Amornpoj Kullawijit, 'Special interview with Dr Suvit Yodmani, UNEP regional director and representative, Regional Office for Asia and the Pacific', *Dullapaha*, January-March 1996, at 13.
[239] Ibid.

purchasing behaviour. Once this objective has been achieved, it is possible to remove the subsidy entirely, since it has achieved its main (and short-term) objective.

To conclude, there are serious objections to the use of subsidies as a major tool of environmental policy, not least the fact that it so seriously violates the 'polluter payss' principle. However, there may be at least a limited range of circumstances where short term expediency suggests they have a valuable role to play. Of these, their contribution as a 'circuit breaker' is most important, and the leaded petrol example given above is a classic example of how such a policy can be used successfully to change motivation and behaviour of target audiences.

They may also be used as a short-term means to encourage and facilitate cleaner production strategies on the part of industry. Providing tax breaks on pollution control equipment is one means of achieving such a result; but, subsidies alone are most unlikely to succeed in these circumstances. Only if they are combined with more coercive techniques designed in the long term to satisfy the polluter pays principle can their use as a part of the solution, be justified.

E. Financial Instruments

The main object of financial instruments is, like most economic instruments, to provide incentives for polluters to improve their environmental performance. Financial instruments are similar to subsidies in that they provide money-related assistance to polluters, but they also have a distinctive characteristic: normally they are extra-budgetary and financed from foreign aid.[240] Examples of financial instruments include revolving funds, green funds (these may be called 'environmental funds' in some countries including Thailand), subsidised interest rates, and soft loans.[241]

The advantage of financial instruments is to enable industries to afford the necessary expenses for improving their environmental performance in circumstances where otherwise they might be unable to do so. In the case of Thailand, given that government agencies, particularly those involved in environmental issues, also have access to the

[240] Theodore Panayotou, *Instruments of Change*, at 40.
[241] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 77-8.

assistance (see below)[242], this could be considered a very considerable advantage of financial instruments. However, financial instruments also share the principal disadvantages of subsidies described above, including breach of the polluter pays principle, and the risk of attracting new polluters into the industry.[243]

Thailand and financial instruments

As described in Chapter 2, the 'big bang' reform under the 1992 *Enhancement Act* encompasses financial instruments, in the form of the environmental fund, among of several innovative measures.[244] The environmental fund has been less successful than anticipated because, perhaps surprisingly, it has not gained much popularity among industry, largely because of a number of onerous conditions associated with the fund, which serve to discourage fund applicants. For example, it is a prerequisite that any municipality requesting financial support from the fund must be partly self-financed with regard to the environmental management project.[245]

Another example of onerous conditions is the fact that the fund's interest rates are high compared to those from the bank. According to Dr Prakit Kirawanich, then director-general of the Pollution Control Department, the environmental fund charges interest at 6.8 per cent, while the Krung Thai Bank, one of the state-owned banks, charges only 1.7 per cent.[246]

Moreover, although the environmental fund committee comprises a number of people from many different agencies, as well as experts who may be appointed from the private sector[247], a majority of the committee members are government officials. This in itself raises serious problems What is wrong if government officials outnumber those from the private sector in the committee? As we found in Chapter 4, patronage relationships

[242] See also, the 1992 *Enhancement Act*, Section 23.
[243] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 77-8.
[244] See Chapter 2 for more details.
[245] Thailand Environment Institute, *Executive Summary, Decentralizing Environmental Management – Participatory Approach*, Thailand Environment Institute 1995 Annual Conference, 3 July 1995, at Queen Sirikit National Convention Center, Bangkok.
[246] Interview with Dr Prakit Krawanich on 18 December 1996.
[247] Under the 1992 *Enhancement Act*, the Environmental Fund Committee comprises twelve *ex officio* members from government agencies concerned, and up to five experts appointed by the National Environmental Board. Notably, these expert members are not necessarily from private sectors: government officials could be appointed as expert members as well. For more details, see Section 24 of the 1992 *Enhancement Act*.

between government officials and politicians; between government officials, politicians and business; and among government officials themselves are pervasive in Thailand. Chapter 4 also reveals that the political will to tackle the environmental issue seriously is lacking in Thailand.[248] Therefore, it would be naive to expect that the Committee's decision is free from distortion as long as promotion of the Committee members who are government officials is under the control of their bosses, who are either government officials in higher positions, or incumbent politicians who oversee their agencies. This assertion is confirmed by Amnat Wongbandit *et al.*'s suggestions that priority in fund allocation has been given only to large-scale projects, most of which are owned by well-known people with political connections at present.[249]

The fund usually involves a large amount of money. Accordingly, given Thailand's experience in the abuse of power concerning budget allocation for environmental treatment systems mentioned in the previous chapters[250], coupled with the discussion in the preceding paragraph, there is a very serious risk of abuse and misallocation of funds. The solution to this inevitably necessitates transparency and public monitoring if the fund is to be used as initially intended.[251] In particular, information regarding the balancing amount of the fund, and all transactions concerning the fund, should be more open to the public. This will bring about not only transparency to the public, but convenient information for those who want to apply for the fund as to whether the fund is available.

At the same time, more representatives from NGOs should be included on the Environmental Fund Committee. This will create a balance of power to ensure that the Committee making work is free from political or bureaucratic influence which will in turn lead to the Committee's fair and rational decisions that provide the utmost benefits to Thailand's environment.

Moreover, the condition that any municipality which wants to apply for the fund must be partly self-financed should be revoked, as activities concerning environmental

[248] See Chapter 4 for greater details.
[249] Amnat Wongbandit *et al.*, *Report on Recommendations for Laws and Regulations for Environmental Protection and Operating Mechanisms for Control and Enforcement*, at 277.
[250] Chapter 4 showed that Mr Banharn Silapa-archa, ex-prime minister of Thailand, allocated budgets for environmental management to the Department of Civil Work, with which he had a close tie, instead of the Ministry of Science, Technology and the Environment.
[251] See Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 77-8 for more details.

management could involve a large amount of money. Accordingly, it would be too burdensome for municipalities, most of which do not have seed money to initiate environmental management projects, to fully or partly shoulder the expenses incurred. Predictably, if this condition still exists, there may be only a few municipalities applying for the fund.

Also, the fund's interest rates should be reduced. As we have already learned from the previous chapters showed, many small and medium firms have become major contributors to air and water pollution, for various reasons including an inability to afford the expensive technologies required for environmental management. These factors have already made these firms inclined to disobey the law. It is therefore essential to reduce the interest rates if the fund is to attract these small and medium firms to participate in the scheme.[252]

Finally, more attention should be paid to small-scale loans. This will give many small and medium firms more opportunities to obtain the financial assistance under the environmental fund scheme.

F. Civil Liability

The tenet of civil liability is based on tort law, a traditional (and *ex post*)[253] legal mechanism used for claiming compensation from those who caused damages.[254] With appropriate civil liability provisions, the damaging consequences of air or water pollution could result in substantial legal and financial liability for the polluter, which in turn could be an incentive for them to reduce pollution.[255] For example, the U.S. Congress passed the *Oil Pollution Act* of 1990 (OPA) in response to the 1989 *Exxon Valdez* oil spill in Alaska, thereby increasing oil spill liability as an incentive to prevent the problem of water pollution from oil spills.[256]

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[252] See interview with Dr Prakit Kirawanich above.
[253] See Theodore Panayotou, *Instruments of Change*, 1998, at 41.
[254] Brian Jones, 'Deterring, Compensating, and Remedying Environmental Damage: The Contribution of Tort Liability', in Peter Wetterstein (ed.), *Harm to the Environment: The Right to Compensation and the Assessment of Damages*, 1997, at 1-18.
[255] Carter Brandon and Ramesh Ramankutty, *Toward an Environmental Strategy for Asia*, at 80.
[256] See Richard Dunford, 'Natural Resource Damages from Oil Spills', in T.H.Tietenberg (ed.), *Innovative Environmental Policy*, 1992, at 175-6.

However, using civil liability to tackle environmental issues is not free from drawbacks, not least its total dependence upon the court system. In particular, litigation is commonly time-consuming and expensive and is generally not worthwhile in any except very high-value claims.[257] Another barrier to success in claims for air and water pollution is the difficulty of proving causation and fault (except where there is strict liability): that the defendant is the person who caused the damage to the plaintiff, and that he or she was negligent in doing so.[258] Further, as Peter Wetterstein argues, the consequences of environmental harm in many cases are manifest long after the incident concerned. This could make the plaintiff's case less convincing as the defendant can simply contend that the plaintiff's injury could be caused from anything else other than the defendant's activity.[259] Perhaps these shortcomings of civil liability are responsible for the ineffective results of this approach in many countries. This is especially the case among Asian nations.[260] The case of Thailand is discussed below.

Thailand and strict civil liability in environmental cases

The 1992 *Enhancement Act* introduced strict civil liability as one of the methods tailored to improve environmental quality. Why is strict liability essential for addressing environmental issues in Thailand? Thailand had used conventional civil liability under tort law to facilitate compensation for environmental harm before the emergence of the 1992 *Enhancement Act*. However, because it is a complex and demanding task to prove that the plaintiff's injury was directly caused by the defendant's fault, conventional civil liability under the tort law was superseded by strict civil liability. This was intended to

[257] Ibid. See also, Panat Tasneeyanond, 'The 1992 *Enhancement Act*: *It's about time for overhaul*', *Journal of Ecology*, Vol. 25, No. 2, May-Aug 1998, at 37.
[258] Donald Dewees, 'Tort Law and the Deterrence of Environmental Pollution', in T.H. Tietenberg (ed.), *Innovation in Environmental Policy*, 1992, at 151. See also, Chatchom Akapin, 'Enforcement and Compliance Priorities', a presentation given to the Bangkok Conference, Environmental Priorities in Southeast Asian Nations, organised by Standing Committee on Environmental Law, American Bar Association. This presentation was later published in Sarah McCaffrey and Elissa Lichtenstein (eds), *Environmental Priorities in Southeast Asian Nations*, 1997, at 136.
[259] See Peter Wetterstein, 'A Proprietary or Possessory Interest: A Conditio Sine Qua Non for Claiming Damages for Environmental Impairment?', in Peter Wetterstein (ed.), *Harm to the Environment: The Right to Compensation and the Assessment of Damages*, 1997, at 29-30.
[260] Carter Brandon and Ramesh Ramankutty, *Toward an Environmental Strategy for Asia*, 1993, at 80.

enhance the effectiveness of compensation claims in environmental cases.[261]

Under a strict liability regime, the defendant is liable for all injuries caused by his or her action, even without showing negligence. The plaintiff merely has to prove that it was the defendant who conducted the damaging action, regardless of his or her intention or negligence. If the court is convinced of this, it will award compensation to the plaintiff.[262]

Unfortunately, the strict civil liability provisions under the 1992 *Enhancement Act* have not proved effective. For similar reasons to those identified by the World Bank's study which reveals that liability is not effective in Asia today as described above[263], it is evident that strict civil liability has not yielded satisfactory results in Thailand at present. As Mr Warin Tiemjaras, assistant secretary to the Thailand Lawyers Association for Environmental Protection said:

> Although Section 96 of the 1992 *Enhancement Act* introduced strict civil liability, the plaintiff still has to prove that it was the defendant who caused the incident. This kind of burden of proof discourages those who want to bring the cases to the courts as it is hard to prove.[264]

To illustrate the difficulties of bringing successful civil litigation, even under strict liability provisions, an air pollution case is an example. In 1993 Mrs Mayuree Taevivat filed a lawsuit to the Central Labour Court, claiming compensation of six million baht from Electro Ceramics (Thailand) Co, Ltd., her former employer. She claimed that she

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[261] Sunee Mallikamarl, *Environmental Law Enforcement*, 1996, at 102. See also, Chatchom Akapin, 'Law Enforcement: An Issue to be Improved in Protection of the Thai Enviroment', *Dullapaha*, 1996, at 86.
[262] Sunee Mallikamarl, *Environmental Law Enforcement*, 1996, at 102. See also, Paul Clements-Hunt, *Thailand's Status as an Emerging Environmental Market: A Comparative Analysis of Six Asian Countries*, A Paper Presented at the Conference: Industry & Environment, 29 May 1995, at Queen Sirikit National Convention Centre, Bangkok. For the exact meaning of strict liability, Steven H. Gifis defines as 'Liability without fault. Often in tort law, one who engages in an activity that has an inherent risk of injury is liable for all injuries proximately caused by his or her enterprise, even without a showing of negligence'. See Steven H. Gifis, 1991, *Law Dictionary* (Third Edition), at 468 for more details.
[263] Carter Brandon and Ramesh Ramankutty, *Toward an Environmental Strategy for Asia*, 1993, at 80.
[264] The interview took place on 28 December 1996.

had been exposed to aluminium dust for five years during her work at the defendant's plant. Consequently, she later suffered body pain and headaches. During the trial, she also produced as supporting evidence a hospital's test results diagnosing that she had been exposed to chemical poisoning. In 1996, the court handed down its verdict, saying that the plaintiff had failed to prove that aluminium dust in the plaintiff's plant was the cause of her illness. For this reason, the plaintiff was not allowed to get any compensation.[265]

What do we learn from this case? Apparently, the plaintiff did not have a problem in establishing that she had been exposed to the aluminium dust in her work environment. However, she could not convince the court (the onus being on her to do so) that there was a causal link between her exposure to the aluminium dust and her illness, because it was extremely demanding to prove that it was this dust in her workplace that was responsible for her illness. This illustrates the weakness of the civil liability scheme.

In addition, the Thai court system itself is also responsible for the ineffectiveness of strict civil liability under the 1992 *Enhancement Act*. According to Mr Dej-udom Krairith, president of Thailand Lawyer Association for Environmental Protection suggested:

> Compensation in environmental cases is awarded on the basis of punitive damages. This practice does not seem to be practical for environmental cases in which harmful effects could be invisible and take some time to manifest. I think the country should introduce a principle of consequential damages to the compensation claiming system for it will ensure that any damage stemming from an environmental offence will be remedied in the future.[266]

Despite the existence of strict civil liability, it is evident from the above discussion that the problems of civil liability in Thailand are substantial and are principally the burden of proof, and the court's attitude which regards environmental cases as ordinary civil cases. This chapter therefore suggests the following reform be undertaken.

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[265] Thaksina Khaikaew and Chakrit Ridmontri, 'Toxin law case ends in defeat', *Bangkok Post*, 29 October 1996.

[266] The interview was conducted on 5 January 1997.

First, the burden of proof under the 1992 *Enhancement Act* should be amended. More specifically, the plaintiff's duty to prove that there is a causal link should be revoked. He or she should be required to prove only that the defendant's action discharged pollution which had a potential to cause harmful effects to him/her, and to establish a *prima facie* case that he or she received harmful damage from the pollution. Then it must be the defendant's duty to convince the court that there is no causal link between its action and the plaintiff's injury. If the defendant fails to convince the court, he or she must be liable for compensation.[267]

Second, following the change in burden of proof suggested above, environmental courts should be established. This is to create understanding and experience among judges who handle environmental cases, which have unique characteristics such as the difficulty of proving that the damaging consequences result from the defendant's polluting activity discussed above.

But is there any possibility of establishing an environmental court in Thailand? Will the environmental courts be sure to take into consideration the unique nature of environmental cases when making judgements? There are a number of useful precedents for such a proposal. Thailand currently has a number of exclusive courts established for dealing with certain kinds of cases such as taxation courts, labour courts, and intellectual property courts.

But to ensure that any newly established environmental court fully comprehends the unique characteristics of environmental cases, a number of other measures need to be implemented simultaneously. These include the provision of environmental training and information for the judges in these courts. In conjunction with these other mechanisms, civil liability might at least make a modest contribution to improving the environmental performance of Thai industry.

[267] Amnat Wongbandit *et al.*, *Report on Recommendations for Laws and Regulations for Environmental Protection and Operating Mechanisms for Control and Enforcement*, at 210.

G. Performance Bonds

Under this scheme, environmental performance bonds are charged in advance from polluters for potential damage resulting from their activities.[268] How much the bonds are repaid varies with the degree of damage the polluters have caused: the full amount of the bonds will be repaid to industry if no damage took place, whereas the bonds could be forfeited in the event of poor performance.[269]

A good example of environmental performance bonds can be drawn from the case of a mining company which must lodge a bond with the relevant government authority upon the beginning of mining. When the project is complete, the bond will be spent on rehabilitation of the land used for mining. If the company fails to restore the land, or causes substantial water pollution such as continued leaching of pollutants into the water, the cost of remediation will be deducted for the rehabilitation.[270]

Environmental performance bonds schemes have a number of strengths. First, the concept of environmental performance bonds is to shift responsibility for controlling pollution from the government to polluters.[271] This scheme, as far as air and water pollution is concerned, provides incentives for polluters to take adequate measures to minimise such pollution caused by their activities so that they can obtain the return of all, or most of the bond after completion of the project. Second, the bond scheme has the potential to be an effective way to help clean up pollution because the money needed to do so is already in the government's hands.[272] Third, environmental performance bonds also correspond to the polluter pays, and precautionary principles.[273] Finally, interest generated from the bonds could be used for the purpose of environmental improvement. This includes to putting interest into an environmental fund, or a reserve fund to be used in the case the bonds' amount is not sufficient to clean up pollution.

However, environmental performance bonds schemes have some limitations. They work best in the situation where there is only one point source of pollution whose

[268] Theodore Panayotou, *Instruments of Change*, at 43.
[269] M.D. Young, *et al.*, *Reimbursing the Future*, 1996, at 123.
[270] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at ?
[271] Theodore Panayotou, *Instruments of Change*, at 43.
[272] Ibid.
[273] Ibid.

performance can be estimated individually.[274] Also, they are most suitable when a polluting activity has a finite duration. The final weakness is that it is difficult to specify the bond's amount as it is not easy to estimate potential damage in the future.

Thailand and environmental performance bonds

Thailand has recently introduced environmental performance bonds. However, the scheme does not deal directly with the issues of air and water pollution; rather, it is limited to hazardous waste management. Under the current scheme, industrial firms are required to post performance bonds according to projected levels of hazardous wastes. Rebates will be paid if it is found by the environmental audits that firms attain lower wastes per unit of output.[275]

Should this scheme be expanded to address the problem of air and water pollution in addition to hazardous waste? Considering the strengths of environmental performance bonds discussed above, this chapter suggested the scheme should indeed be extended to the issues of air and water pollution in Thailand. However, there is one significant practical problem, namely the capacity of most industries to afford the bonds, given the economic downturn in Thailand at the time of writing. To make this scheme work, it is suggested that polluters be allowed to deposit the bonds by instalments. The full amount of bonds must however be deposited to the authority concerned before halfway through the project. This is to provide incentives to a firm to do business in an environmentally friendly manner, so that it can get the bonds back after the completion of the project.

Conclusion

This chapter suggests that Thailand should move towards a more pluralistic regulatory system based more on economic instruments as well as on command and control

[274] See Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 79-80.
[275] Carter Brandon and Ramesh Ramankutty, *Toward an Environmental Strategy for Asia*, at 76.

regulation. As we have seen, although economic instruments have the considerable advantages of flexibility, cost-effectiveness and efficiency, at least in their ideal form, some economic instruments however work better than others and some are more suited than others to the particular political and cultural context of Thailand in practice.

For example, while tradable rights particularly purport to deal with a limited number of readily quantifiable pollutants efficiently, the problems of corruption, limited technical skills and other failings of regulators (including regulatory capture) make their use problematic. However, as regards the contained area of the IEAT's industrial estates they have considerable potential for success.

In broader terms, despite the trend towards the use of economic instruments, as shown by the introduction of the polluter pays principle in the 1992 reforms, many complex issues are still to be resolved. First, Thailand still needs to develop the expertise to properly formulate and administer these instruments. For example, what industries are to be taxed, and at what levels? Given that many of these technical problems have not been satisfactorily solved in developed countries which have a long experience in the use of these instruments, the situation may be even more unclear in Thailand.

Secondly, although many financial instruments are based on market-based incentives, active administration by expert regulators is substantially required if these instruments are to function properly. As pointed out, corruption and patronage impede the regulatory process in Thailand. Thus the shift from command and control to economic instruments will not change the fact that efficient, competent and honest regulators have to be produced. Thirdly, the whole economic system in Thailand is in a state of flux following the crisis of 1997. Thus the government is currently focusing more on keeping the economy afloat than on environmental protection. Thousands of businesses in Thailand have been bankrupted or are facing the threat of bankruptcy, and are struggling for survival. Apparently, the government is sympathetic to their cause, and will be unlikely to intensify pressures on them through enhanced environmental requirements.

Finally, the introduction of many new regulatory instruments could pose a great danger as it may confuse and overburden the regulatory system, as well as the regulated parties. Thus it may be best to currently focus on selected instruments such as the

'polluter pays principle', which has already been established in the 1992 reforms, and fully implement that before progressing to others.

IV. Self-Regulation

A. Need for Self-Regulation

Although it is difficult to provide a universally common definition[276], self-regulation may, for the present purposes, be defined as initiatives by firms or industry sectors to regulate themselves through the setting of self-imposed standards, and involving monitoring of member firms to ensure compliance.[277] As far as industry, the main polluter of air and water, is concerned[278], self-regulation could also be defined as 'a regulatory process whereby an industry-level (as opposed to a government or firm-level) organisation sets rules and standards (codes of practices) relating to the conduct of firms in the industry'.[279] Similarly, the Organization for Economic Co-operation (OECD) defined self-regulation as a process whereby an organised group regulates the behaviour of its members.[280]

Self-regulation has become increasingly important as a policy instrument to curb pollution as policy makers have come to recognise the substantial limitations of command and control regulation and to some extent economic instruments, as the central strategies to deal with environmental issues.[281] Self-regulation is increasingly seen as a viable alternative, or complementary, policy tool, which has the potential to be

[276] As Neil Gunningham and Joseph Rees point out, 'no single definition is entirely satisfactory'. For more details see Neil Gunningham and Joseph Rees, 'Industry Self-Regulation: An Institutional Perspective', in Neil Gunningham and Joseph Rees (eds), *Law & Policy*, Special Issue on Self-Regulation, Vol. 19, No. 14, October 1997, at 364.

[277] Australian Manufacturing Council, 'The Environmental Change: A Report on Best Practice Environmental Regulation', 1993.

[278] United Nations, *Transnational Corporation and Environmental Management in Selected Asian and Pacific Developing Countries*, ESCAP/UNTCT Publication Series B, No. 13, Economic and Social Commission for Asia and the Pacific, Bangkok, at 288.

[279] See Neil Gunningham and Joseph Rees, 'Industry Self-Regulation: An Institutional Perspective', at 364-5.

[280] Organization for Economic Co-operation and Development (OECD), *Meeting on Alternatives to Traditional Regulation*, 1994, May, OECD, Paris, at 7.

[281] Eric Orts, 'Reflexive Environmental Law', at 1253.

integrated into a policy mix which still includes command and control regulation and economic instruments.[282] Indeed, for some years, self-regulation has been important in many areas such as securities, commodity futures, and advertising regulation[283], in particular in advanced economies such as the United States and Western Europe.[284]

In environmental protection, the importance of self-regulation was highlighted by Agenda 21, the main policy agenda to emerge from the 'Earth Summit' in 1992, which emphasised its capacity to enhance business and industry's environmental performance.[285] At the domestic level, self-regulation has been integrated as a crucial part of environmental policy in many countries, including the United States, Canada, and Australia.[286]

However, in contrast, self-regulation is so far much less popular in developing countries, and only slowly is it being adopted as a policy in such countries. For this reason case studies of these countries, especially those from Asia, are very limited. Yet it is in precisely these countries that strategies to improve business ethics and behaviour are most needed, as recent evidence from the Organization for Economic Cooperation and Development (OECD) confirms In particular, the OECD suggests that the 1997-1998 financial crisis in Asia has shown the need for better standards of business

[282] Stephen Schmidheiny, *Changing Course*, 1992, at 29-30. See also Neil Gunningham and Joseph Rees, *Law & Policy*, Special Issue on Self-Regulation, Vol. 19, No. 14, October 1997, at 364; Eric Bregman and Arthur Jacobson, 'Environmental Performance Review: Self Regulation in Environmental Law', in Gunther Teubner, Lindsay Farmer and Declan Murphy (eds.), *Environmental Law and Ecological Responsibility: The Concept and Practice of Ecological Self-Organization*, 1994, at 207.

[283] Franco Furger, 'Accountability and Systems of Self-Governance: The Case of the Maritime Industry', in Neil Gunningham and Joseph Rees (eds.), *Law & Policy*, Special Issue on Self-Regulation, Vol. 19, No. 14, October 1997, at 452.

[284] See Bardach & Kagan, *Going by the Book*, 1982; Roberta Karmel, 'Securities Industry Self-Regulation – Tested by the Crash', *Washington and Lee Law Review, Regulation Symposium*, 1988, Vol.45; and Eric Bregman and Arthur Jacobson, 'Environmental Performance Review: Self Regulation in Environmental Law', in Gunther Teubner, Lindsay Farmer and Declan Murphy (eds.), *Environmental Law and Ecological Responsibility: The Concept and Practice of Ecological Self-Organization*, 1994, at 207.

[285] Agenda 21, Chapter 30 ('Strengthening the Role of Business and Industry'); see also Neil Gunningham, 'Environment, Self-Regulation and the Chemical Industry', *Law & Policy*, Vol. 17, No. 1 January 1995, at 58.

[286] See Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 50-6.

behaviour, and that 'the Asian crisis highlighted the weakness in transparency, in regulation, and in overall good governance in the corporate sector in a number of countries.[287]

In its ideal form, self-regulation has a number of advantages over direct government regulation, providing a 'win-win' solution achieving both the private interests of individual enterprises and the public interest.[288] From the government's perspective, an effective self-regulatory scheme could help reduce regulators' workload[289] while also passing responsibility to the group (industry) which has the greater specialist skills and more sophisticated expertise and experience than government regulators. The latter are forced to be generalists because of the shortage of manpower, and commonly lack technologically advanced equipment and expertise as a result of budget constraint.[290] Given these constraints on government inspectors, it is tempting for them to pass at least part of the role of regulation to industry itself provided they can be confident that industry will regulate itself honestly.[291] This is of course a very large qualification and a highly contentious issue to which we will return.

A further attraction of self regulation is its capacity to encourage higher ethical standards of conduct on the part of industry rather than an attitude of merely complying with minimum regulatory standards. This could help improve industry's behaviour, thus leading to integration of environmental concerns into the management process.[292] Self-regulation also provides flexibility for firms to meet regulatory requirements by their own means.[293] Moreover, a number of important, and apparently relatively successful

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[287] Paul Lewis, 'Corporate Conduct Code is Proposed for Third World Nations', *Email News*, 29 April 1999.

[288] See Manas Sa-nguandeekul, 'Feedback from Private Sector towards Government Policy on Environmental Management', A Paper Presented in the Seminar, *Industrial Development and Environmental Conservation, Cholburi*, Thailand, 27 September 1996, at 6. See also, Neil Gunningham and Joseph Rees, 'Industry Self-Regulation: An Institutional Perspective', in Neil Gunningham and Joseph Rees (eds), *Law & Policy*, Special Issue on Self-Regulation, Vol. 19, No. 14, October 1997, at 364

[289] See Ian Ayres and John Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate*, 1992, at 103. See also Robert Kagan, 'Regulatory Enforcement', in D. Rosenbloom and R. Schwartz (eds.), *The Handbook of Regulation and Administrative Law*, 1994, at 395-9.

[290] Darren Sinclair, 'Self-Regulation Versus Command and Control? Beyond False Dichotomies', in Neil Gunningham and Joseph Rees (eds), *Law & Policy*, Special Issue on Self-Regulation, Vol. 19, No. 14, October 1997, at 530.

[291] See Roberta Karmel, 'Securities Industry Self-Regulation – Tested By the Crash', *Washington and Lee Law Review, Regulation Symposium*, 1988, Vol.45, at 1306-7; and John Braithwaite and Brent Fisse, 'Self-Regulation and the Control of Corporate Crime', in Clifford Shearing and Philip Stenning (eds), *Private Policing*, 1987, at 222-4.

[292] Richard Welford, *Cases in Environmental Management and Business Strategy*, 1994, at 16-20.

[293] Roberta Karmel, 'Securities Industry Self-Regulation – Tested By the Crash', at 1305-6.

environmental initiatives, are built around self-regulation. These include ISO 14001, which is discussed in detail in Chapter 7, and the Responsible Care program later in this section.

Increasingly, governments in many countries are integrating self-regulation as a regulatory strategy. In the United States, the Environmental Protection Agency (EPA) has recently launched the 'Reinventing Environmental Regulation' initiative, which includes Project XL (for Excellence and Leadership) and the Environmental Leadership Program (widely known as ELP). Project XL involves the development by regulated enterprises of site-specific alternative compliance plans, while ELP allows firms to develop their environmental management systems according to their resource availability. In return, firms are committed to improve corporate accountability for regulatory compliance; however, Project XL also requires firm applicants to negotiate their proposals with all parties involved, including the local community, before EPA considers the project approval.[294]

In essence, under both these initiatives, firms that can demonstrate that they are environmental leaders and committed to environmental best practice are given very considerable discretion to regulate themselves largely free of some of the constraints which are imposed by environmental law on other firms These are 'regulatory flexibility' initiatives which are built around a degree of self-regulation reinforced by government and third party oversight.

Some governments in Asia also perceive the significance of self-regulation, although so far, only to a limited extent. For example, Hong Kong's Environmental Protection Department (EPD) has recently introduced a self-introductory program to provide flexibility for industry to be able to comply with regulation. This is consistent with studies which show that Hong Kong's government has consistently adopted a philosophy of working alongside trade associations and the Federation of Industry to make sure that self-regulation works effectively.[295]

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[294] Rena Steinzor, 'Reinventing Environmental Regulation: The Dangerous Journey from Command to Self-control', *Harvard Environmental Law Review*, Vol.22, 1998, at 111-2.

[295] Andrea Zavadszky, 'Balancing the Legal Scales', *Asian Sustainable Development Projects*, Vol.1, No. 2, June-August 1994, at 26-7.

B. Forms of Self-regulation

Self-regulation may take many forms,[296] and can be classified according to various typologies, though none shows that self-regulation can be entirely separated from government regulation.[297] Neil Gunningham and Joseph Rees seek to locate various forms of self-regulation in terms of social control, and place pure self-regulation and government regulation at opposite ends of a continuum, with various forms of co-regulation located in between. The nearer such co-regulation points towards the government regulation end, the greater magnitude of government oversight is developed.[298]

Based on the above, forms of self-regulation can for the purposes of this thesis be classified into two approaches according to the degree of government involvement: pure self-regulation, and partial self-regulation. In pure self-regulation, industries are granted entire autonomy from government's regulatory control. In partial self-regulation, governments grant regulatory flexibility to the firms which can demonstrate their commitment to best practice environmental management.

How do these different forms of self-regulation perform in practice? Studies show that pure self-regulation has a poor record as most firms which have adopted this regime normally succumb to their self-interest in the absence of regulatory control.[299] For this reason, examples of self-regulation in this form which are successful or endorsed by government are almost impossible to find in the real world.[300] Partial self-regulation, on the contrary, has constantly been in the limelight among environmental stakeholders and it is this form of self-regulation that has been adopted in some contexts in Thailand. For all these reasons, the discussion in this section is limited to partial self-regulation.

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[296] Neil Gunningham and Joseph Rees, 'Industry Self-Regulation: An Institutional Perspective', in Neil Gunningham and Joseph Rees (eds), *Law & Policy*, Special Issue on Self-Regulation, Vol. 19, No. 14, October 1997, at 364-6.

[297] As Rena Steinzor argues, self-regulation is the term used by political scientists and legal scholars to connote alternative compliance plans conceived by regulated entities, with some degree of government review and public involvement. See Rena Steinzor, 'Reinventing Environmental Regulation: The Dangerous Journey from Command to Self-control', *Harvard Environmental Law Review*, Vol 22, 1998, at 104.

[298] Neil Gunningham and Joseph Rees, 'Industry Self-Regulation: An Institutional Perspective', at 366.

[299] See further Neil Gunningham, 'Environment, Self-Regulation and the Chemical Industry', at 58-109.

[300] Darren Sinclair, 'Self-Regulation Versus Command and Control? Beyond False Dichotomies', at 533-4.

For the purposes of this thesis, it is necessary that we break down partial self-regulation into two approaches: (i) self-regulation by individual firms; and (ii) industry-based self-regulation, before examining how self-regulation can help to address environmental problems under each approach.

1. Self-regulation by individual firms

Under this approach, each participating firm is allowed to regulate itself providing it is committed to improving its environmental performance so as to achieve at least compliance with applicable regulation. The Voluntary Protection Program (VPP) initiated by the United States Occupational Health and Safety Administration serves as a good example. Under this program, OSHA will render more flexible (less frequent and less intrusive) inspection and enforcement to any company which implements an Occupational Health and Safety (OHS) management system: largely trusting it to achieve by its own means the better result required by the legislation.[301]

However, because establishing systems does not necessarily guarantee regulatory compliance, OSHA does not grant complete autonomy to a participating firm to regulate itself. Rather, the firm is required to convince OSHA not only that it has a system, but also that it will meet certain outcome-based requirements. These include elaboration of its hazard assessment procedures; training program and operating process; and a commitment to rectify all hazards identified through self-audit, employee reports, or accident investigations, as well as to disclose the investigation results to its employees.[302]

What do we learn from the OSHA case? It is clear that it would be naive for the government to grant regulatory flexibility to a participating firm merely because it claims to self-regulate. For this reason, government must be convinced that the firm's environmental performance at least meets regulatory requirements, and that such sound performance will continue. This leads to another question: how can regulators and management be sure that the firm's performance meets government requirements? In addition to the other mechanisms identified in the VPP above, not least, transparency

[301] Neil Gunningham, *From Adversarialism to Partnership?: ISO 14000 and Regulation*, a paper presented to the conference, ISO 14000: Regulation, Trade and Environment, 2 July 1996, Hyatt Hotel Canberra, at 18.
[302] Ibid, at 18-9.

and accountability to third parties, it is crucial that there is some independent means of determining whether the firm is discharging its environmental responsibilities. To this end, scholars suggest either that the firm itself or some independent auditor conduct environmental audits[303], providing the results to the regulator. Given that environmental audits can help both individual firms and industry associations achieve the goal of self-regulation, and to provide assurance to the regulatory agency that self-regulation is indeed working in the public interest, it is appropriate to discuss the role of audits here.

Perhaps the best way to understand the role of environmental audit is to begin with a basic question: what is an environmental audit? As defined by the EPA, an environmental audit is a systematic, documented, periodic, and objective review by regulated entities of operations and practices related to meeting environmental requirements.[304] Similarly, the International Chamber of Commerce (ICC) in drawing up audit guidelines which promote the need for self-regulation in the Responsible Care program, has defined an environmental audit as:

> A management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organisation, management and equipment are performing with the aim of helping to safeguard the environment by: (i) facilitating management and control of environmental practices; and (ii) assessing compliance with company policies, which includes meeting regulatory requirements.[305]

The traditional role of environmental audits is to act as a mechanism for management to get an objective appraisal of an enterprise's performance for regulatory compliance.[306] However, in response to the emergence of the concept of pollution prevention and the promotion of Total Quality Environmental Management by the Global Environmental Management Initiative (GEMI), the objective of at least some corporate environmental management has undergone a radical transformation, that is, to advance environmental management and environmental outcomes 'beyond compliance' with regulation. Given

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[303] Eric Bregman and Arthur Jacobson, 'Environmental Performance Review: Self Regulation in Environmental Law', in Gunther Teubner, Lindsay Farmer and Declan Murphy (eds.), *Environmental Law and Ecological Responsibility: The Concept and Practice of Ecological Self-Organization*, 1994, at 220.

[304] See P. J. Ennis, 'Environmental Audits: Protective Shields or Smoking Guns? How to Encourage the Private Sector to Perform Environmental Audits and Still Maintain Effective Enforcement', *Washington University Journal of Urban and Contemporary Law*, 1992, Note 24, at 394.

[305] Richard Welford, *Cases in Environmental Management and Business Strategy*, 1994, at 21.

[306] Richard Wells, 'Auditing for Compliance Is Only the Beginning: Lessons from Leading Companies', in John Willig (ed.), *Auditing for Environmental Quality Leadership*, 1995, at 13-14.

this transformation, there are now two major roles for environmental audits. First, compliance audits, the traditional type, identify whether an organisation is in compliance with environmental laws, and if it is not compliant, to identify ways to make it comply; and second, 'environmental management audits' audit the entire environmental management practices and systems of an organisation, holding out the potential of moving the organisation 'beyond compliance'.

In self-regulation, compliance audits can help provide feedback to the management of a participating firm as to whether the firm's environmental performance meets regulatory requirements. Also, management audits help management to perceive potential risks associated with the firm's operation, anticipate environmental damage, and prevent it from happening.[307] Obviously, audit is central to a firm in determining whether it is meeting its self-regulatory commitments, just as it is to ensuring it is complying with regulatory requirements.

Alongside industry, government agencies involved in regulatory enforcement have increasingly paid attention to environmental audits. In the US for instance, both the Department of Justice and EPA persistently encourage regulated entities to carry out compliance or management audits voluntarily as they hope that the audits will actively induce firms' compliance without extensive government oversight.[308]

A question arises: who should conduct an environmental audit? As critics argue, firms may audit their environmental performance merely to buy trust from regulators and interest groups, rather than to actually improve their environmental performance or to ensure their compliance with environmental laws.[309] Two solutions to this problem may be suggested. The first is that the audit should be conducted not by the firm itself, but

[307] Richard Welford, *Cases in Environmental Management and Business Strategy*, 1994, at 21.

[308] P. J. Ennis, 'Environmental Audits: Protective Shields or Smoking Guns? How to Encourage the Private Sector to Perform Environmental Audits and Still Maintain Effective Enforcement', Note 24, at 396.

[309] Theodore Panayotou, Todd Schatzki, and Qwanruedee Limvorapitak, *Differential Industry Response to Formal and Informal Environmental Regulations in Newly Industrializing Economies*, A Case Study for the Harvard Institute for International Development (HIID) 1997 Asia Environmental Economics Policy Seminar, at 2-3.

by an independent third party nominated by government.[310] The reason is that it would be naive to be sure that a self-audited firm would improve its environmental performance after finding out its non-compliance (where a conflict of interest may arise), given that it is no longer subject to direct government scrutiny. The second option is industry-based self-regulation, which is discussed below.

2. Industry-based Self-Regulation

According to this approach, an industry association is empowered by its members to police the activities of each member company. That is, the industry association largely takes over the functions of a government regulator.[311] One crucial component of any industry-based self-regulation is its capacity to identify how its members are performing. Some form of environmental audit is generally the most appropriate means of satisfying this goal.

An innovative method of improving the credibility of audits under a system of industry-based self-regulation has been tested in Alberta, Canada. Under this scheme, each participating firm agrees to allow a certified independent auditor from another participating firm in the same industry group to audit its operation.[312] Since the project has started only recently, it is too early to judge its success regarding self-regulation.[313] However, the project provides us with a clear model of one credible means of using one firm to audit the environmental performance of another within an industry group in response to increasing scepticism about self-audit.

Another model, which recognises the dangers of allowing firms to audit each other when there are personal ties and reciprocal monitoring between auditing and audited

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[310] Eric Bregman and Arthur Jacobson, 'Environmental Performance Review: Self Regulation in Environmental Law', in Gunther Teubner, Lindsay Farmer and Declan Murphy (eds.), *Environmental Law and Ecological Responsibility: The Concept and Practice of Ecological Self-Organization*, 1994, at 220.

[311] Joseph Rees, *Hostages of Each Other: The Transformation of Nuclear Safety since Three Mile Island*, 1994.

[312] See Neil Gunningham, 'Environmental Management and Community Participation: Rethinking Chemical Industry Regulation', *University of California at Berkeley Environmental Law Journal*, 1998, at note 190

[313] Ibid.

firms, is for the industry association itself to take on this role,[314] in effect substituting itself for the regulatory body and monitoring the behaviour of firms within the same industrial community. Take the case of the Institute of Nuclear Power Operation (INPO). Located in Atlanta, INPO was created by American nuclear industry executives in 1979 in response to the Three Mile Island nuclear accident. Recognising that any repeat incident of similar severity might result in the closure of the entire nuclear industry, the industry itself took far-reaching steps to regulate itself. Despite its status as a private entity, INPO performs the duty of a regulatory body by developing standards, conducting inspections, and investigating accidents. There is strong evidence that it has done so very successfully and that as a result, environmental performance and safety among firms in the nuclear association have remarkably improved.[315]

What is behind INPO's success? Although INPO is empowered to exercise tough sanctions against intransigent members if non-compliance is detected, research has found that it also promotes the atmosphere of a distinctive kind of community in the nuclear power industry. As Joseph Rees argues, this movement towards community has helped develop an innovative responsibility-centred culture in the industry, thus bringing about the regulatory success mentioned in the preceding paragraph.[316]

This model of an industry association performing as a regulatory body is not limited to the nuclear industry. For example, the chemical industry has also adopted industry-based self-regulation under its Responsible Care program, empowering the chemical association to regulate its members, as described later in the subsection on community of fate, one of several factors suggested to help enhance the effectiveness of self-regulation.

C. Weaknesses of Self-regulation

Self-regulation, like all other regulatory tools, is not without its shortcomings. First, there has been criticism that the project approval, under the sorts of regulatory flexibility initiatives described earlier, is a time-consuming, expensive and confusing

[314] Franco Furger, 'Accountability and Systems of Self-Governance: The Case of the Maritime Industry', at 452.
[315] Joseph Rees, 'Development of Communitarian Regulation in the Chemical Industry', in Neil Gunningham and Joseph Rees (eds.), *Law & Policy*, Special Issue on Self-Regulation, Vol. 19, No. 14, October 1997, at 478.
[316] Ibid.

process, which discourages industry from participating. The case of Project XL supports this assertion. Research has found that Project XL staff lack technical expertise to foresee potential problems posed by industry proposals to participate in the program, thereby causing delays in review and approval. As a consequence, EPA received a total of forty six applications in 1998, much fewer than the several hundred expected upon the launch of the program in 1995.[317]

Furthermore, Project XL is also plagued by confusion over the criteria EPA uses in determining if a project will achieve 'superior environmental performance,' a prerequisite to participation and to the bestowing of partial self-regulation.[318] EPA did not define the criteria to evaluate the environmental improvements offered by XL proposals for the first two years of the program. Obviously, this resulted in the failure to identify the true costs necessary for attaining the goal of superior environmental performance. Despite subsequent corrections in 1997, these revised criteria still create costs and complications in joining the scheme and also fail to provide a transparent set of standards used for judging the overall merits of XL proposals.[319]

Second, the scheme is not well trusted by the public. It is often seen not only as a sham among industries in order to escape from direct government intervention and public scrutiny, but as an excuse for government regulators not doing their jobs. Indeed, there is a genuine and serious risk, according to John Braithwaite, that

Self-regulation is frequently an attempt to deceive the public into believing in the responsibility of an irresponsible industry. Sometimes it is a strategy to give the government an excuse for not doing its job.[320]

These public concerns about the efficiency of self-regulated entities and relevant regulators described above have some substance. For example, in the case of the Mab

[317] Rena Steinzor, 'Reinventing Environmental Regulation', *Harvard Environmental Law Review*, Vol. 22, 1998, at 124-5.
[318] Thomas Caballero, 'Project XL: Making It Legal, Making It Work', *Standford Environmental Law Journal*, Vol. 17, 1998, at 407.
[319] Ibid.
[320] John Braithwaite and Brent Fisse, 'Self-Regulation and the Control of Corporate Crime', in Clifford Shearing and Philip Stenning (eds.), *Private Policing*, 1987, at 242.

Ta Phut air pollution case discussed in the previous chapters, evidence shows that even Bayer Premier and Bayer Polymers Co. Ltd, the firms adopting self-regulatory schemes, were involved. Yet these are firms which had quite far-reaching self-regulatory controls. Dr Wolfgang Herrig, President and CEO of these firms, said during my fieldwork interview:

> We have the system of internal auditing among our affiliate companies because we always want to do our best in terms of environmental protection regardless of applicable laws.[321]

Yet despite these self-regulatory controls, the evidence was that these firms were among those responsible for serious violations of environmental regulation.

Furthermore, research has found that many rules and standards used as codes of practice to monitor participating firms' behaviour tend to be set at the lowest common denominator: an industry association is inclined to establish the rules and standards with which all participating firms can comply with no difficulty.[322] And even if there are stringent codes of practice, industry associations are loath to impose tough action on participating firms.[323] As John Braithwaite and Brent Fisse argue, nothing could be less like a family than an industry association. Since the association officials are drawn from those representing firms within industry, and more importantly, the benefit each official receives from the association is far less than that received from his or her own company, it would be naive to contemplate tough sanctions imposed on member companies.[324]

On the other hand, in acknowledging the failings of self regulation we must remember to ask the crucial question: how does it compare to the alternatives? In the case of the Mab Ta Phut air pollution it must be remembered that the government also failed to regulate effectively and this itself was a major cause of the environmental disaster. Mr Yuthana Phudchong, a community leader of Mab Ta Phut, said:

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[321] The interview was conducted on 6 February 1998.

[322] See Naomi Roth-Arriaza, 'Shifting the Point of Regulation: The International Organization for Standardization and Global Lawmaking on Trade and the Environment', *Ecology Law Quarterly*, 1995, at 529-31.

[323] John Braithwaite and Brent Fisse, 'Self-Regulation and the Control of Corporate Crime', in Clifford Shearing and Philip Stenning (eds), *Private Policing*, 1987, at 243.

[324] Ibid.

> People in Mab Ta Phut district have suffered from air pollution emitted from factories within the Industrial Estate Authority of Thailand (IEAT), Mab Ta Phut site for two years. We therefore asked IEAT to resolve the problem but our outcry was ignored. We then submitted our petition to many local government agencies, ranging from municipal to provincial levels. Again, there was no response from them (until the disaster took place in 1997).[325]

Third, government's loose control under the self-regulatory scheme could provide an opportunity for firms to succumb to self-interest, and then bend the rules in exchange for short-term profits. This situation is widely known as 'free riding.' What is free riding? How does it affect the success of self-regulation? As scholars point out, free riding is a phenomenon in which an individual enterprise does not participate in a collective action but still benefits from such an action participated by others.[326] Indeed, free riders could be the firms which initially participated in a self-regulatory scheme, but do not genuinely implement it, or those who refused to take part in the scheme from the outset. Essentially, either situation could lead to failure of self-regulation as the free riders enjoy less government scrutiny at the expense of those who implement the scheme. Hence, there is reason to believe that if free riding continues, those who have complied with self-regulatory schemes may be discouraged and their interest in self-regulation could eventually wane.[327] What will happen next is clearly foreseeable. Without adequate and sincere cooperation among firms, a self-regulatory scheme will no longer receive trust from all those involved, thus limiting the success of the scheme.

We have seen that traditional forms of regulation do not have a good record in countries such as Thailand, and that self-regulation, at least in principle, has some considerable advantages in its flexibility; the fact that it enables scarce regulatory resources to be redeployed elsewhere; and its capacity to involve industry directly and to cause industry to go 'beyond compliance' and to achieve successful results. Yet in practice self-regulation often falls foul of the short-term self-interest of individual companies continuing to pollute; it can sometimes degenerate into a sham; and it may result in a

[325] The interview was conducted on 6 February 1998.
[326] Mancur Olsen, 1965, *The Logic of Collective Action.*
[327] Neil Gunningham and Joseph Rees, , 'Industry Self-Regulation: An Institutional Perspective', at 392-6.

lowest-common-denominator approach on the part of industry associations. Yet when we ask the crucial question: how does self-regulation compare to other regulatory tools *in practice,* there may be at least some circumstances where it compares favourably to other alternatives. We explore these issues further in the context of environmental protection and pollution control in Thailand.

D. Towards effective self-regulation in Thailand

As we have seen, the concept of self-regulation can involve the grant of regulatory flexibility to a firm which has successfully convinced regulators that it will produce better environmental performance voluntarily. Considering that regulatory tools must be designed with sensitivity to cultural mores, this approach fits the Thai context very well. As many suggest, the Thai do not like to be forced[328] and respond badly to government regulation and legal compulsion. For example, Assistant Professor Dr Kittisak Prokati of Faculty of Law, Thammasat University suggested:

> It appears that Thai people have a compromising lifestyle. Therefore, they perceive the law as alien. In the Chinese community, law is seen as a tool for suppression and punishment. (hundreds of thousands of Chinese migrated to Thailand many years ago; at present, many Thai citizens are of mixed Thai and Chinese origin.) Consequently, many Thai tend to avoid complying with the law.[329]

Thus we are comparing grossly imperfect regulatory instruments and in Thailand, there may well be more potential to harness self regulation in the public interest than has so far been realised.

The circumstances where self-regulation has the greatest potential are those where there is a community of shared fate, an underpinning of government regulation, and co-regulation, third-party oversight, the involvement of transnational corporations, and an

[328] Manas Sa-nguandeekul, 'Feedback from Private Sector towards Government Policy on Environmental Management', A Paper Presented in the Seminar, *Industrial Development and Environmental Conservation, Cholburi*, Thailand, 27 September 1996.
[329] The interview took place on 10 February 1998.

international audience. However, as this chapter is concerned with domestic issues only, this last factor, the use of an international audience as a solution to enhance the effectiveness of self-regulation, will be left to Chapter 7.

1. A community of shared fate

A 'community of shared fate' exists in circumstances where an environmental calamity caused by one member of the industry group will ruin the reputation of the entire industry.[330] For the purposes of this thesis, cooperation among industry members for the adoption of self-regulation could be anticipated if each member company realises that its business will no longer survive if there is non-compliance by any of the other members.

A classic example of how community of shared fate brings about the success of self-regulation can be drawn from INPO discussed earlier. In that case, the industry realised in the aftermath of the Three Mile Island disaster that it could not afford to have another such incident involving *any* American nuclear power facility because if it did, the entire industry risked closure and the fate of one would be the fate of all. However, the nuclear industry is not alone in generating a community of shared fate. Other industries which, unlike nuclear power, are prevalent in Thailand also confront a similar dynamic and similarly might be susceptible to effective self-regulation because they have a similar interest in the effective regulation of the entire industry.

Take the chemical industry here instead. It is no coincidence that Thailand's chemical industry has introduced a very extensive and sophisticated scheme known as the Responsible Care program, which embodies industry-based self-regulation in response to public pressures.

As briefly discussed in the section on disclosure of environmental information, the Bhopal and Seveso disasters posed a serious threat to the reputation of the entire chemical industry regarding environmental health and safety (EH&S) issues. The industry therefore introduced the 'Responsible Care' program to help improve its image. Under this scheme, chemical companies commit themselves to the improvement

[330] Joseph Rees, *Hostages of Each Other: The Transformation of nuclear safety since Three Mile Island*, 1994.

of their EH&S performance.[331] To ensure that such a commitment is genuinely undertaken, the Chemical Industry Association of each country which has adopted the program takes the role of regulatory body in overseeing the members' performance.[332]

It should be noted that the Responsible Care program has interested many agencies involved in environmental issues at both international and domestic levels, such as the United Nations Environment Program (UNEP), and the U.S. Environmental Protection Agency (EPA). How has it been possible for an industry trade association to successfully persuade its member companies to pursue the concept of environmental protection, and in many circumstances to take action beyond what environmental regulation requires? For example, Jacqueline Aloisi de Larderel, director of UNEP's Industry and Environmental Program Centre in Paris observed:

> (The chemical industry's) Responsible Care program is the most advanced voluntary program I have seen. It is providing leadership for all industries by developing a program aimed so clearly at environmental excellence.[333]

Similarly, an EPA official revealed to Joseph Rees in his research that the Responsible Care program (in its USA version) was the most advanced initiative related to environmental protection among industry. Most importantly, he gave credit for the program's success to the Chemical Manufacturers Association (CMA) which oversaw the program and whose 195 member companies were involved in approximately 95 per cent of the chemicals manufactured in the US.[334]

Turning to Asia, Responsible Care has also been the flagship program to help achieve sound occupational and EH&S performance among chemical companies in many countries in the region.[335] Among these, research has found that the program is

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[331] Neil Gunningham, *Environment, Self-Regulation, and the Chemical Industry: Assessing Responsible Care*, Law& Policy, 1995, at 59-61.
[332] Federal of Thai Industries, 'Chemical Industry Group is Planning to adopt Responsible Care', Press Release, at 1-2.
[333] Michel Roberts, 'Care Gives Industry a Leadership Role in Sustainable Development', *Chemical Week*, 7 July 1993, at 20.
[334] Joseph Rees, 'Development of Communitarian Regulation in the Chemical Industry', at 479.
[335] 'Environmental Management in Asia's Chemical Sector', *Asia Environmental Review, April 1999*, available on the internet at the website www. asianenviro.com/

remarkably successful in Japan, Hong Kong, and Singapore.[336] It is apparent that this success is attributable to constant pressures from both international and domestic influences and to the dynamic of a community of shared fate. Regarding the former, international NGOs have been particularly influential in bringing pressure to bear. For example, Greenpeace in late 1998 criticised governments of developing countries in Asia for not paying enough attention to chemical problems The international environmental NGO also denounced producers and suppliers from Western countries for having done too little to warn their customers in this region.[337] The chemical industry, which attracts much public attention internationally, is very vulnerable to the public relations damage of such allegations. Regarding the second factor, the Bhopal disaster in India served as an alarm to the chemical industry internationally and dramatically forced the industry to recognise that it was involved in what scholars now call a community of shared fate.

At about the same time as the Greenpeace campaign, Hong Kong's High Court handed down its judgement against Ciba-Geiby (Hong Kong) over a case involving one of its pesticides. The court found that the defendant failed to meet its responsibilities to handle the imported chemical substances properly.[338] This case also brought the chemical industry internationally into the public spotlight.

As for Thailand, it is necessary to re-emphasise that the Thai chemical industry has recently applied to the International Council of Chemical Association (ICCA) to be a member of the Responsible Care program[339] in response to criticisms concerning a series of accidents resulting from the industry's operation. Examples include the explosion of chemical substances stored in the Port Authority's warehouse in 1991. Sixteen people living in the vicinity died and many were injured as a result of explosion. Also, many became seriously ill as the incident involved 3,810 kinds of toxic chemicals.[340] Most recently, a huge explosion at a *longan* processing factory in Chiang Mai province caused a fatal disaster, killing 38 people, injuring more than 100, and

[336] Email interview with Mr Bundit Pattawekongka, Senior Safety and Environmental Manager, Rayong Olefins, Co. Ltd. on 23 September 1999.
[337] 'Environmental Management in Asia's Chemical Sector', *Asia Environmental Review, June 1999*, available on the internet at the website www. asianenviro.com/
[338] Ibid.
[339] See the section on Disclosure of Environmental Information, *supra*, for greater details.
[340] The Environmental Committee, the House of Senate, *The Committee's Report on Disaster from Toxic Substances at Klong Teuy (Bangkok) Port*, at 1-2.

destroying many assets near the plant. According to the investigation, potassium chlorate, the chemical used for the *longan* processing, was to blame for the incident.[341]

More specifically, chemicals are often responsible for air and water pollution. This is evident from the air pollution case in Mab Ta Phut discussed in the previous chapters and the water pollution case at Samutprakarn province discussed in the next section.[342]

What do we learn from the above discussion? As in many other countries, Thailand's chemical industry has responded to the recognition that they confront a community of shared fate by embracing the internationally recognised Responsible Care program as a credible self-regulatory solution. A central question however remains: how long will the spirit of community of shared fate continue? As previously discussed, a firm may initially join its fellow companies to adopt a self-regulatory scheme, but succumbs to self-interest and then takes a 'free ride' later.[343]

Dealing with free riding to maintain the spirit of community of shared fate

To overcome the free riding problem, scholars have suggested a number of measures. For example, disclosure of each participating member's behaviour not only to other members of the self-regulatory scheme, but to the public as well, might well serve to bring pressure on recalcitrants.[344] So also might a process of shaming within the industry association, in conjunction with a history of effective cooperative action taken by industry associations (as has been the case with INPO), reinforced by a system of punishing non-compliant firms or handing them over to the government regulator.[345]

How can we make the above suggestions work in the Thai context? With respect to disclosure of firms' behaviour within the same industry, recent criminological studies show that this practice could be used by an industry association to 'shame' a non-

[341] Subin Khemkaew and Omsan Suksai, 'Factory explosion kilies 28', 'Chuan orders check on chemical stocks', and 'Chemical Hazard: Taksin's nephew reports to police', *Bangkok Post*, 20, 22, and 28 September 1999.
[342] See Chapters 3 and 4, for the details of Mab Ta Phut air pollution case. For the Samutprakarn water pollution case, see the section of command and control regulation.
[343] See Theodore Panayotou, *et al.*, *Differential Industry Response to Formal and Informal Environmental Regulations in Newly Industrializing Economies*, A Case Study for the Harvard Institute for International Development (HIID) 1997 Asia Environmental Economics Policy Seminar, at 2-3.
[344] Ibid, at 213-4.
[345] Neil Gunningham and Joseph Rees, , 'Industry Self-Regulation: An Institutional Perspective, at 393-4.

compliant firm so that it will subsequently comply with applicable regulation.[346] This strategy can be very effective in the case of large firms which are concerned about their reputation. And as public interest in environmental issue is constantly increasing, the public relations damage of being perceived as non-compliant also increases.[347]

In contrast, research has found that firms which do not have a reputation to protect, such as small firms, are likely to skirt the laws as their smallness enables them to hide from public scrutiny.[348] This is also the case for Thailand where small and medium firms are major sources of pollution.[349] Thus, it would be naive to expect that the shaming tactic will succeed in the case of small firms in Thailand.

However, the strategy may be able to influence small firms indirectly through the application of product stewardship. How does this strategy work? Product stewardship demands responsibility for environmental health and safety, from those involved with a product from inception through to final disposition. Under this strategy, large firms are in an advantageous position to press small firms who are suppliers into compliance in the light of information disclosed about a firm's behaviour.[350] Indeed, research has found that numerous interactions between upstream chemical producers and their downstream industrial customers are made to improve the risk management throughout the business cycle of each chemical.[351] For example, some firms are requiring each supplier to have a company environmental policy which is affirmed by an independent audit. Others assist suppliers in self-evaluation and help them find ways to improve their environmental performance.[352] The interactions therefore could lead to improvement in many small firms' behaviour, as they usually do their business as subcontractors.[353] In essence, large firms can be shamed into compliance through public

[346] John Braithwaite, *Crime, Shame, and Reintegration*, 1989.
[347] Indeed, this chapter has already discussed the virtue of the information disclosure approach as one of the effective mechanisms to help improve regulatory compliance in Thailand. See the section on disclosure of environmental information for further details.
[348] Christen White, 'Regulation of Leaky Underground Fuel Tanks: An Anatomy of Regulation Failure', *UCLA Journal of Environmental Law*, 1996, at 148-9. See also Fiona Haines, *Corporate Regulation*, 1997, at 182.
[349] Amornpot Kullawijit, 'Environmental Problem: Depletion of the Ozone Layer', *Dullapaha*, 1996, at 160. See also Thailand Environment Institute, *Cleaner Technology in Thailand*, 1997, at 6.
[350] See Neil Gunningham, 'Environment, Self-Regulation, and the Chemical Industry: Assessing Responsible Care', at 83-4.
[351] Michael Baram and Patricia Dillon, 'Corporate Management of Chemical Accidents Risks', in Kurt Fischer and Johan Schot (eds.), *Environmental Strategies for Industry*, at 233-4.
[352] Neil Gunningham, 'Proactive Environmental Management: Business and Regulatory Strategies', *Australian Journal of Environmental Management*, Vol. 1, No. 2, September 1994, at 123.
[353] See Fiona Haines, *Corporate Regulation*, 1997, at 182.

disclosure and such firms, as part of their commitment under Responsible Care, will apply the principle of product stewardship to their smaller trading partners.

Evidence shows that product stewardship does indeed exist in Thailand, although it could be developed further. According to Mr Pertpal Singh, Director, Environmental Health and Safety for Asia/Pacific, Penang Seagate Industries, whose manufacturing plants are located in various countries, including Thailand:

> ISO 14000 is, basically, an environmental management system which requires a lot of self-audit... If ISO 14000 takes the same route as ISO 9000, it is going to provide quiet a bit of encouragement. People expected ISO 9000 to influence suppliers because as an ISO 9000 contractor you expect your suppliers to comply. I would require suppliers to Seagate to comply with ISO 14000.[354]

The power of publicity is reinforced by the fact that the media in Asia have paid a great deal of attention to environmental issues. In Singapore, newspapers always publish pictures of those who have violated environmental laws; details of this are discussed in the next section which deals exclusively with command and control regulation. In Thailand too, environmental issues always receive attention from the media. Mr Michele Corash, an environmental lawyer from San Francisco, spoke from his experience in Thailand:

> We have been here for four or five days, and every day there is an article about the environment on the front page of the Bangkok Post and the television is full of stories about the environment.[355]

Similarly, Mr Amnarj Sonimsart, a news commentator and senator, said:

> So far, I have noticed that the environmental situation is a little bit better than it was...The media has constantly rendered a lot of cooperation for environmental campaigns.[356]

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[354] Pertpal Singh, 'Infrastructure Development and Pollution Prevention Priorities', in American Bar Association, *Proceedings of Environmental Priorities in Southeast Asian Nations, 1997*, at 111.
[355] Michele Corash, 'Infrastructure Development and Pollution Prevention Priorities, in American Bar Association', *Proceedings of Environmental Priorities in Southeast Asian Nations, 1997*, at 112.
[356] The interview took place on 3 January 1997.

Thus in Thailand, a combination of publicity, high visibility and shaming, can be effective in press large corporations to honour their self-regulatory commitments, while product stewardship can at least contribute to improving the environmental performance of small and medium sized enterprises, which are not directly vulnerable to shaming and publicity.

2. Power of Regulatory Body

The power of the self-regulatory body is also crucial to the success of industry-based self-regulation. The more powerful the self-regulatory body is, the more likely it is to persuade participating members to comply with the self-regulatory requirements.[357] The case of INPO discussed earlier serves as a classic example. INPO has achieved significant improvements in environmental performance and safety within the industry because it has taken a direct approach to inspection and has used its considerable powers to persuade recalcitrants to mend their ways. As Rees has demonstrated, this includes undertaking its own inspections of participating companies, using both its own staff and those co-opted from individual facilities; demanding and gaining access to all areas of inspected facilities; studying each plant thoroughly; and issuing a critical evaluation of each plant's performance.[358]

Since that such an evaluation is sometimes ignored by recalcitrant members, INPO accordingly resorts to the corporate shaming tactic: sharing inspection and audit information with other members and, if necessary, with government regulators so that the poor performance of individual firms is widely known. Such corporate shaming has proved widely successful against all but a very small minority.[359] However, on the very few occasions when this strategy does not work, then INPO will expel the recalcitrant member. Such an INPO action will provide a strong and unmistakable signal to the government regulator to step in and apply tough measures to the recalcitrant facility. These measures include withdrawal of the member's operation licence.[360]

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[357] Anil Gupta and Lad Lawrence, 'Industry Self-Regulation: An Economic, Organizational, and Political Analysis' Academy of Management Review, cited in Neil Gunningham, *Environment, Self-Regulation, and the Chemical Industry: Assessing Responsible Care*, at 83

[358] Joseph Rees, Hostages of Each Other: The Transformation of Nuclear Safety since Three Mile Island, 1994.

[359] Neil Gunningham, *Environment, Self-Regulation, and the Chemical Industry: Assessing Responsible Care*, at 82.

[360] Ibid.

In Thailand, self-regulation is less developed than in countries such as the USA, Canada, and Australia. At the time of writing, it appears that there is only one major self-regulatory body functioning in Thailand, and this relates to the chemical industry (although the IEAT may also in the future play this role). This body, the Chemical Industry Club, has been authorised by ICCA to oversee the Responsible Care self-regulatory program in Thailand.[361] But is there any guarantee that the Chemical Industry Club will perform the duty of a self-regulatory body seriously?

The chemical industry has a notorious record of harmful accidents and of causing industrial pollution, and for these reasons is a continuing cause of public anxiety. More importantly, it is the entire chemical industry, not an individual firm, which is seen by the public as a threat.[362] Thus the chemical industry has a very high public profile, its major environmental failings are usually very visible, and a disaster or major pollution incident caused by one company may well have adverse implications, including an adverse political and regulatory reaction, for the entire industry; that is, there is a 'community of shared fate'. Against this background, there is good reason to believe that the Chemical Industry Club has an incentive to use its best efforts to regulate its member companies to improve their environmental performance. Both it and some of its most influential members recognise that serious environmental failure could have very serious adverse implications for the industry as a whole. Indeed, as Bhopal demonstrates, these implications might extend internationally as well as just within Thailand itself.

Thus there is at least the potential for the Chemical Industry Club to be a powerful self-regulatory body like INPO. But will it do so? The structure for it to do so already exists, as does an international self-regulatory model developed by the chemical industry and capable of being applied in any individual country: Responsible Care, the industry's self-regulatory initiative, now operates in over 40 countries. Under this model, the Responsible Care National Association of each country has many responsibilities, including setting up a verification process and reporting the members' performance to ICCA once a year.[363] As a result, the Club has the power to oversee the environmental performance of the Thai chemical industry, and to act as a *de facto*

[361] Email interview with Mr Bundit Pattawekongka, Senior Safety and Environmental Manager, Rayong Olefins, Co. Ltd. on 9 June 1999.
[362] This is the 'Community of shared fate' situation which we have discussed above.
[363] Chote Geamsakul, *Responsible Care Initiative*, a public relations release, at 3.

regulator to ensure that all fundamental environmental requirements are being met by all participating.[364]

Another body with the potential to regulate its members effectively is the Industrial Estate Authority of Thailand (IEAT), a state enterprise which can significantly facilitate industrial business. Dr Somchet Tinnapong, IEAT's governor, said during my fieldwork interview:

> Our main task is to render services to the industrial factories doing business in our sites as 'one stop shop'. Such services include coordinating for permit granting, providing necessary infrastructure such as roads, electricity, waters, etc.[365]

Similarly, Ms Kasemsri Homchuen, IEAT's director of environmental and safety control, disclosed that:

> they (the industry) came to us because we have provided many services such as application for business operation, infrastructure, etc. Furthermore, some incentives such as tax reduction, exemption from import duty are also available for manufacturers whose plants are located in our sites.[366]

However, apart from helping participants in their business operations, the IEAT also has the power to regulate them. For example, IEAT has recently applied for an ISO 14000 certificate, the approval of which is expected by late 1999. As described earlier, ISO 14000 presupposes self-regulation. Given that the relationship between IEAT and industrial plants within its sites is like that of an industry association, it is therefore likely that the plants will be required to have self-regulation in place to meet the ISO 14000 requirements. To ensure that the scheme yields satisfactory results, IEAT must act as the self-regulatory body and could potentially do so.

However, there are considerable political and cultural constraints on its successfully taking this self-regulatory responsibility. In particular, as previously discussed, the IEAT has a double role to play: promoting industrial investment on the one hand, and enforcing environmental regulations over the plants in the estates on the other; this

[364] Darren Sinclair, 'Self-Regulation Versus Command and Control? Beyond False Dichotomies', at 537.
[365] The interview took place on 26 December 1996
[366] The interview was conducted on 26 December 1996

would be a major challenge for the agency to discipline industrial firms on issues of pollution control lest such action might discourage investment. Perhaps the Mab Ta Phut air pollution case described in Chapter 3, in which the IEAT allowed the pollution problem to exist for about two years without taking any action despite the public outcry,[367] provides a good lesson that it would be naive to rely on the agency successfully, conducting self-regulation.

At present, it is not known whether either Responsible Care or the IEAT scheme will indeed succeed, and it is far too early to judge this empirically. In essence, the genuine success of the latter scheme, which is closely linked to the success of ISO 14000, is in the hands of IEAT, as to how seriously it chooses to oversee the plants for which it is responsible and ensures that they comply with the scheme's codes of conduct.

3. Third Party Oversight

A further factor which is likely to be crucial to the success or failure of self-regulation is the extent to which the self-regulatory scheme is transparent and susceptible to community oversight. How do we know that company's claims about its self-audited and self-regulated environmental performance are accurate? It is apparent that third party oversight and transparency in monitoring the effectiveness of an environmental management system are indispensable in gaining community trust and legitimacy.[368]

The independent professional audit, one step beyond the reciprocal audits contemplated in Alberta, is the most obvious form of third-party oversight.[369] It not only guarantees the efficiency of an audit, but reduces anxiety about transparency. At present many firms require each supplier to have independent auditors audit its environmental policy.[370]

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[367] Interview with Mr Yutthana Putchong, a Mab Ta Phut community leader, on 6 February 1998.
[368] Neil Gunningham, , 'Industry Self-Regulation: An Institutional Perspective', at 396-400.
[369] Panithan Yamwinij, *Environmental Auditing System*, A Paper Presented to the Workshop, New Dimension in Environmental Management and Relevant Regulation, jointly organised by the United Nations Environment Programme (UNEP) and Center for Environmental Law and Development, Faculty of Law, Chulalongkorn University, 29 November – 1 December 1995, at 12. See also Neil Gunningham, *From Adversarialism to Partnership?: ISO 14000 and Regulation*, at 19.
[370] Neil Gunningham, 'Proactive Environmental Management: Business and Regulatory Strategies', at 123.

In Thailand too, there is a precedent for this approach: government requires that a third-party auditor audit the environmental performance of the firms which have applied for a Green Label certificate. Ms Prima Wangwongwiroj, of the Ministry of Industry said:

> To be granted Green Label certificate, an applicant must show that their manufacturing process is environmentally friendly. In this case, we require the applicant to have a third party audit if such claim is true.[371]

A question arises: who pays for the independent third-party audit? As the audit provides information for an enterprise on how it performs in relation to environmental management, it is appropriate that the enterprise bears the cost for such an audit.[372] However, having the enterprise pay for the audit could cut both ways. While it satisfies the polluter pays principle on the one hand, on the other it risks capture of the third-party auditor by the enterprise which pays the auditing fees. In Thai culture this is a serious problem as capture often occurs as a result of the 'gratitude culture' discussed in the previous chapters.[373]

As the public is the major stakeholder in environmental issues, it is also clear that little will be achieved in the absence of public involvement. Information regarding audit results must be disclosed to the public to assure them that the standard is genuinely implemented.[374] Strategically, the disclosure of audit results helps provide transparency and also harnesses the power of the public, which armed with information about the poor performance of certain facilities, may bring pressure upon them directly or through the political process. This transparency creates pressure on the independent professional auditors to do their job seriously and honestly without giving any favours to their client firms Moreover, such disclosure of audit results coincides with the fundamental requirements of Responsible Care and its maxim 'don't trust us, track us' where public involvement is required.[375]

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[371] The interview took place on 20 February 1998.

[372] See Neil Gunningham and Peter Grabosky, *Smart Regulation:Designing Environmental Policy*, at 199-200. The authors argue that having the enterprise pay for the audit it is consistent with the polluter-pays principle.

[373] See Chapter 4 for further details.

[374] Neil Gunningham, *From Adversarialism to Partnership?: ISO 14000 and Regulation*, at 21.

[375] Neil Gunningham, 'Environment, Self-Regulation, and the Chemical Industry: Assessing Responsible Care', at 57-95.

4. Government Involvement: The Need for Co-regulation

> 'If self-regulation worked, Moses would have come down from the Mountain with the Ten Guidelines'.
>
> *Peter Grabosky and John Braithwaite quoting a regulatory official.*[376]

The above statement bluntly shows scepticism about the effectiveness of self-regulation from the regulators' point of view.[377] Such scepticism has a point because there is evidence that many firms do succumb to the pursuit of short-term profit in circumstances where this is contrary to the public interest,[378] and the Mab Ta Phut air pollution case demonstrates the limits of pure self-regulation without further controls. Furthermore, even where there is a strong industry association and credible third-party oversight, these mechanisms, while important, are not without their shortcomings. And in some circumstances, credible third parties with an interest in scrutinising industry and keeping it honest, may simply not exist or be too weak to fulfil this role. Accordingly, it would be naive to expect pure self-regulation to succeed in the absence of credible third party *and* government oversight.

But will such government intervention ruin the spirit of self-regulation, the tenet of which is to allow firms to regulate themselves in exchange for a commitment to sound environmental performance? To provide a 'win-win' solution, scholars suggest the intervention should be undertaken in the form of 'co-regulation'.[379] Under this approach, government regulators do not directly police industry performance (which would defeat any real measure of regulatory flexibility) but rather 'regulate at a distance' by conducting periodic reviews of the reports made by third-party audits.[380] This will serve to mitigate industries' opposition to government involvement in their

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[376] See Peter Grabosky and John Braithwaite, *Of Manners Gentle: Enforcement Strategies of Australian Business Regulatory Agencies*, 1986, at 184.

[377] John Braithwaite and Brent Fisse, 'Self-Regulation and the Control of Corporate Crime', in Clifford Shearing and Philip Stenning (eds.), *Private Policing*, 1987, at 242.

[378] See Theodore Panayotou *et al.*, *Differential Industry Response to Formal and Informal Environmental Regulations in Newly Industrializing Economies*, A Case Study for the Harvard Institute for International Development (HIID) 1997 Asia Environmental Economics Policy Seminar, at 2-3

[379] Ian Ayres and John Braithwaite, *Responsive Regulation*, 1992, at 103. The authors describe co-regulation as industry-association self-regulation with some oversight and/or ratification by government.

[380] Neil Gunningham, 'Environment, Self-Regulation, and the Chemical Industry: Assessing Responsible Care', at 88.

affairs and the perception that government regulation is a rigid, unnecessarily costly and ineptly administered mechanism which hampers the growth of their businesses.[381]

Nevertheless, the need for government involvement raises many of the same difficulties (corruption, lack of competence, lack of resources, lack of political will) which beset command and control regulation and are addressed in the next section. To the extent that these problems prove intractable, then co-regulation will also have serious limitations, though under the latter, there is less reliance on the effectiveness of government regulation than in the case of command and control.

5. Foreign Investment from Transnational Corporations

As in many other developing countries, Thailand's economic development is heavily dependent on foreign investment.[382] Studies show that most transnational corporations (TNCs) investing in developing countries have their headquarters located in well developed countries. In the case of Thailand, statistics reveal that TNCs doing business in the country include those from Japan, the United States, Australia, Taiwan, United Kingdom, and the Netherlands.[383] These TNCs are by definition large firms which have an international reputation to protect. They are therefore concerned about their image in regard to environmental performance. For this reason, TNCs which operate in environmentally sensitive industries where their vulnerability to environmental risk could result in serious reputational damage, are usually equipped with relatively advanced technologies of environmental management.[384] According to studies conducted by the Thailand Development Research Institute (TDRI), these advanced environmental technologies result not only in better environmental performance but also in cost-effective production.[385] Indeed in some cases TNCs have been in the vanguard of those firms which recognise that environmental improvement can not only enhance the firm's reputation but also provide substantial direct and indirect financial benefits ('win-win' solutions).

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[381] Ibid, at 87.
[382] United Nations, *Transnational Corporation and Environmental Management in Selected Asian and Pacific Developing Countries*, ESCAP/UNTCT Publication Series B, No. 13, Economic and Social Commission for Asia and the Pacific, Bangkok, at 289.
[383] Ibid.
[384] Ibid, at 317.
[385] Ibid, at 330.

Firms in this category are usually very familiar with self-regulation because it is already incorporated in the environmental management policies of some of the advanced industrialised countries in which they operate, such as the United States, Canada, and Australia. For these companies, extending self-regulation to their facilities in developing countries is not a major problem and is something which they commonly do for reasons of self-interest. It is for example, more efficient to have the same standard operating procedures in all facilities in all countries, particularly when a common environmental management system has also been adopted. From here it is a logical step for these TNCs to argue that since they are already ready willing and able to self-regulate, and indeed are demonstrably already doing so, they should be left relatively free of intrusive and cost-ineffective government regulation.

What does the host country get from allowing TNCs to regulate themselves in environmental management? Studies show that the availability of self-regulation helps to attract TNCs given their relative technological advantages. As far as foreign investment is concerned, the more TNCs do business in a host country, the more investment is generated. Moreover, the technologies TNCs bring with them can be either transferred to host countries or used as a good model for local firms to follow. And the TNCs themselves will be more attracted to entering a country and establishing facilities there if the host government refrains from imposing unnecessary layers of regulation.

To the extent that TNCs do adopt effective self-regulatory programs this may have another very considerable advantage for the environment. A major challenge for environmental regulation is controlling the behaviour of small and medium enterprises. Usually there are so many such enterprises, their levels of environmental performance are so weak, and their profit margins so low, that curbing their environmental excesses is almost impossible for very poorly resourced and weak regulatory agencies. It is in this context that the concept of product stewardship becomes critically important, because many local firms are suppliers to TNCs. Those TNCs, in order to protect their own reputation, must be concerned about the environmental credentials of those with whom they deal, for a disaster involving the latter could readily also tarnish the reputation of the TNC itself. Out of this enlightened self-interest has arisen an increasing interest in product stewardship and an insistence on the part of TNCs that their smaller trading partners also meet minimum environmental standards. Since it is

the TNC that has both the skills and the motivation to ensure that such standards are actually being complied with, the environmental behaviour of SMEs can be substantially improved even in the absence of direct government regulation. For example, Du Pont, a US based TNC doing business in Thailand, has established the same high levels of EH&S performance for its Thai operations as those which it meets under its home country's corporate culture.[386]

Importantly, however, not every TNC adheres to the relatively high EH&S standard used in its home country. A report submitted to the International Labour Organisation (ILO) conducted by TDRI suggested that in a situation where law enforcement is weak, as in many developing countries including Thailand, manufacturing plants tend to exploit this 'local accommodation' in host countries by neglecting the safety and welfare of local workers. The report also referred to a survey of 27 chemical plants in Thailand to support its argument. The survey revealed that the handling of hazardous substances in most chemical factories was not properly undertaken. Also importantly, many plants had neither an accident record system nor an emergency plan.[387]

Take the case of Occidental Chemical, another U.S. corporation. The company was not required by the Thai government to comply with its home country's higher standards and Occidental itself never attempted to replicate these standards. Rather, its business strategy was driven by a joint venture agreement, which required it to make incremental on-site improvements in EH&S systems at its previously owned and initially substandard chrome processing facility in Thailand. After acquiring the Thai facility, Occidental's EH&S performance gradually declined.[388]

The experience of the US-based Xerox corporation in India has been similarly disappointing. To ensure that Xerox's proposed photocopier assembly facility would conform to its core development objectives such as equitable regional growth and the prevention of concentrated economic power, the Indian government ordered Xerox to locate in a remote area, and placed a ceiling on its domestic production, while insisting

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[386] Ibid.

[387] Thailand Development Research Institute, *National Strategy for Major Accident Prevention in the Chemical Industry*, a final report submitted to the International Labour Organisation, January 1986. See also United Nations, *Transnational Corporation and Environmental Management in Selected Asian and Pacific Developing Countries*, ESCAP/UNTCT Publication Series B, No. 13, Economic and Social Commission for Asia and the Pacific, Bangkok, at 308.

[388] Jeffery Himmelberger and Halina Brown, 'Global Corporate Environmentalism: Theoretical Expectations and Empirical Experience', *Business Strategy and the Environment*, Vol.4, 1995, at 196-7.

on both extensive technology transfer and extensive local procurements. These demands resulted in a scaled-down and less cost-effective facility, approximately one-third the size of Xerox's smallest similar facility. Xerox's response was to reduce investment in environmental health and safety by replacing its sophisticated dust-control system with personal protective devices (disposable dust masks) and monitoring of ambient dust concentrations.[389]

For this reason, it cannot be assumed that all TNCs will voluntarily achieve high standards of environmental performance although some may do so. Accordingly, the challenge is both to encourage and reward (by regulatory flexibility) those which will voluntarily improve standards and self-regulate, while also ensuring that these are systems to monitor and identify, and take appropriate other action against, those who do not. 'Appropriate action' includes both the third party oversight and transparency mechanisms identified earlier and the use of the other environmental strategies examined below.

Conclusion

In sum, self-regulation has a strong potential to act as an effective policy tool, at least in some circumstances in the Thai context. These circumstances include the existence of a community of shared fate, an underpinning of government regulation (co-regulation), and third party oversight. Although those most likely to support self-regulation are large reputationally sensitive companies and transnational corporations in particular, small and medium enterprises may also be influenced and their environmental performance improved through the principle of product stewardship.

Also, the cultural and political context of Thailand is relevant to the success or otherwise of self-regulation. As the Thai do not like to be forced, even by law, self-regulation may be more acceptable than command and control regulation; and since the state has less involvement in self-regulation, the problems of state corruption and regulatory capture are to this extent mitigated. Moreover, since self-regulation relies substantially on shaming and public embarrassment, while most Thais are concerned about face values, these factors are consistent with the Thai context.

[389] Ibid.

On the other hand, the culture of compromise, of gratitude, of individualism, and of accepting things as they are which is related to some aspects of Buddhism (especially the law of karma), are all cultural attributes which make self-regulation more difficult to implement successfully in Thailand. However, these attributes inhibit the success of most other policy mechanisms as well. To lessen their effect, third parties, and environmental NGOs in particular, must be given access to the information (e.g. through community right-to-know laws), and the power (e.g. through the right to challenge company actions) to act as an effective 'third force'. This is to compensate for the limitations of both self-regulation and government regulation, as well as the cultural forces which inhibit the success of both these mechanisms.

Finally, as with other regulatory mechanisms, self-regulation works better in some contexts than in others. For example, where there is no community of shared fate, it will be much harder to create the right incentives for firms to comply, and to the extent that there is no trustworthy industry association, an effective policing mechanism may be lacking. And where a firm, even a large one, has no public reputation to protect, there may be no effective incentives to participate in and be bound by self-regulation. Once again, we find a particular instrument which, while valuable, is no panacea, and which will work best in combination with other instruments and in complementing them where they are unlikely by themselves to be fully effective.

V. Command and Control Regulation

A. Command and control and the role of sanctions

The mainstay of environmental policy, across a diverse range of countries and cultures, is command and control government regulation. This is a top-down policy instrument under which government establishes standards according to an environmental target (the command), while enforcing those standards through a relevant regulatory agency (the control).[390] In the case of air and water pollution, command and control have been a dominant policy in industrialised countries since the early 1970s and remain so today.[391] Indeed, as recent World Bank studies have demonstrated, throughout the world,

[390] Neil Gunningham, 'Beyond Compliance: Management of Environmental Risk', in Ben Boer, Robby Fowler and Neil Gunningham (eds.), *Environmental Outlook: Law and Policy*, 1994, at 256.
[391] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, 1998, at 38-50.

countries still maintain a central role for this type of environmental regulation despite the presence of a plethora of other policy options.

The very essence of command and control as a policy instrument lies in its deterrence capability, through its capacity to impose serious punishment. But while this is widely regarded as its greatest strength, it is accompanied by considerable potential weakness: the risk of inadequate enforcement and the actual failure to impose such sanctions. Regulated entities are far less responsive to regulatory requirements when they are confident either that they will not be caught, or that if they are caught, the sanctions will be trivial. To tackle this problem, sanctions must be applied to recalcitrants after persuasive measures fail to deliver.[392] In other words, if a carrot is ignored, big sticks must be applied.

But what forms of sanctions will be most appropriate? It has been generally recognised that there are three separate forms of sanctions under command and control regulation: criminal penalties, civil liability, and administrative measures. We have already discussed civil liability earlier in the section of economic instruments. Accordingly, the discussion below is limited to criminal penalties, and administrative measures.

1. Criminal penalties

This form of sanction usually involves imprisonment and fines.[393] The use of criminal penalties as sanctions in environmental offences is pervasive in many countries including the United States, Australia, and Japan.[394] In the United States, most major environmental regulations including those dealing with the issues of air and water pollution such as the *Clean Air Act*, the *Clean Water Act*, the *Rivers and Harbors Appropriations Act* (widely known as the 'Refuse Act'), and the *Safe Drinking Water Act* contain criminal penalties.[395] More importantly, when these laws are enforced, the criminal penalties stipulated therein serve as big sticks.

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[392] See John Braithwaite, *To Punish or Persuade*, 1985, at 118.

[393] Songpol Pollayiem, 'Criminal Sanctions and Problems of Pollution from Industrial Plants', *Dullapaha*, 1996, at 132-5.

[394] Mark Cohen, 'Criminal Penalties', in T.H. Tientenberg (ed.), *Innovation in Environmental Policy*, 1992, at 75-105. See also, Zada Lipman and Lachlan Roots, 'Protecting the Environment through Criminal Sanctions: The Environmental Offences and Penalites Act 1989 (NSW)', *Environmental and Planning Law Journal*, 1995, at 16-9; and Songpol Pollayiem, *Dullapaha*, 1996, at 131-8.

[395] Jason Lemkin, 'Deterring Environmental Crime through Flexible Sentencing: A Proposal for the New Organizational Environmental Sentencing Guidelines', *California Law Review*, 1996, at 310-11.

Perhaps the classic example in this regard can be drawn from the Exxon Valdez case. Exxon learned the hard way how criminal penalties can be used as a big stick. On March 23, 1989, the tanker Exxon Valdez ran aground in Prince William Sound, Alaska, and as a result, produced the largest oil spill in U.S. history. According to the case settlement, Exxon paid a fine of US $125 million as criminal penalties under the *Clean Water Act*, the *Refuse Act*, and the *Federal Migratory Bird Act.*[396]

Turning to Asia, studies show that many countries in this region also have their environmental regulations equipped with criminal sanctions. These include Japan, the Philippines, China, Indonesia, Hong Kong, and Thailand.[397] In Japan, for example, laws related to the control of air and water pollution contain criminal penalties. The penalties will be applied to offenders who fail to meet technology based standards, or specified standards of environmental performance.[398]

As for Thailand, it is necessary to note that most of the Thai environmental regulations are equipped with criminal penalties. For example, a provision in the 1992 *Enhancement Act* states that the owner or possessor of a point source of pollution who failed to send wastewater generated by his activities to the central wastewater treatment plant within the pollution control area or in that locality for treatment shall face both imprisonment and fines.[399] The 1992 *Factory Act* also contains criminal penalties. These include a provision stating that the person who does not comply with an instruction with regard to suspension, or correction, or improvements of a plant's operation issued by the authority after it is found that the plant with which he or she is working has violated this Act, or the plant's operation has a potential to cause hazard, disaster, or nuisance to any person or assets within or nearby the plant, shall be liable to both imprisonment and fines.[400] The use of criminal penalties as a sanction plays an active role among the Thai authorities in dealing with environmental offences.

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[396] Ibid, note 1 at 307. For those who are interested in criminal sanctions under the U.S. Clean Water Act in particular, see Christine Wettach, 'Mens Rea and the 'Heightened Criminal Liability' Imposed on Violators of the Clean Water Act', *Standford Environmental Law Journal*, 1996, at 381-2.

[397] Andrea Zavadszky, 'Balancing the Legal Scales', *Asian Sustainable Development Reports*, June-August 1994, at 19-29.

[398] Songpol Pollayiem, *Dullapaha*, 1996, at 132.

[399] Chatchom Akapin, 'Law Enforcement: An Issue to Be Improved for the Thai Environmental Protection', *Dullapaha*, 1996, at 84-5. See also the 1992 *Enhancement Act*, Section 104.

[400] Chatchom Akapin, *Dullapaha*, at 80-1. See also the 1992 Factory Act, Section 37, 57.

2. Administrative measures

Administrative measures involve proceedings by the government to have a case settled without going to the court. Certain government officials are empowered to issue administrative notices, which have the force of law, although they may be challenged and appealed against in a court or tribunal by the person upon whom they are imposed. These measures can take many forms, which include having the offenders clean up contaminated sites, suspending an operator's licence, shutting down the plant, and withdrawing the offenders' business licences.[401]

Increasingly, administrative measures have become popular among government agencies as they are cheaper and less time-consuming than court proceedings in either criminal or civil cases.[402] Currently, these measures have been widely used in many countries. Examples include the USEPA which often handles the cases through this kind of sanction.[403] Indonesia is another example: administrative measures are included in a number of environmental regulations along with civil and criminal sanctions.[404]

Thailand has also introduced administrative measures in a myriad environmental regulations reformed in 1992. For instance, the 1992 *Factory Act* allows the authority to suspend the plant's operation, or instruct the plant to rectify the problem, or shut down the plant.[405] The 1992 *Maintenance Act* also allows the authority to order the offender to clean up the contaminated site.

However, has Thailand actually implemented the majority of the administrative measures which exist on the statute books? Certainly records show that these measures have been applied to recalcitrants in Thailand in at least some instances. Take the case of Phoenix Pulp and Paper Co Ltd (hereinafter Phoenix). Phoenix is located near the Nam Phong river in Khon Kaen, one of the largest provinces in the northeast of Thailand. In mid-1998, Phoenix's wastewater treatment system failed, resulting in a flux of wastewater kept in the company's ponds into the Nam Phong river. As a

[401] Ibid, at 87.
[402] See Kathleen Segerson and Tom Tietenberg, 'Defining Efficient Sanctions', in T.H. Tietenberg (ed.), *Innovation in Environmental Policy*, 1992, at 54-5.
[403] Ibid.
[404] Paulus Effendie Lotutung, 'Indonesian Environmental Future', A paper presented at the Workshops of the Assembly, in ASEAN Law Association, *The Seventh General Assembly and Conference*, Kuala Lumpur, 1995, at 3-4.
[405] See the 1992 *Factory Act*, Sections 37, 39.

consequence, the Ministry of Industry issued an order to shut down Phoenix's polluting plants for 180 days to improve its wastewater treatment facility.[406] According to Yuthana Priwan *et al.*, the plant closure was the beginning of the Ministry of Industry's strict measures against polluting industries. Also importantly, such measures were endorsed by the Prime Minister.[407]

Another example is the Klity mine case. After receiving complaints from villagers dwelling downstream of the Huay Klity stream that the Klity mine dumped toxic waste into the stream, a Mineral Resources provincial officer investigated the incident. He then found that the mine's tailings pond, which was used for storing toxic sediments, had broken, resulting in the discharge of overflows into the stream. As a consequence, the mine was ordered to suspend its operations. The plant could not be reopened unless its wastewater pond was improved to meet the safety standards.[408]

But while examples such as these illustrate the potential of administrative measures, such cases are the exception rather than the rule. A major reason for this is that administrative measures that threaten serious disruption to a firm's activities, such as having its licence suspended or withdrawn, have severe consequences not only for the continuity of firms, but also for the country's economy as a whole. This is especially the case for developing countries which give priority to economic growth rather than environmental protection. For this reason, governments are often reluctant to impose this kind of sanction on offenders. In Indonesia, research has found that the industry is usually in a strong position to bargain with the government because of its key role in generating a great deal of income in the form of taxes and foreign exchange. As a result, only lenient administrative measures such as fines and warnings are currently imposed on environmental offenders in Indonesia.[409]

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[406] 'Phoenix Paper mill to be closed', *The Nation*, 21 July 1998.
[407] The authors quoted the prime minister as saying 'environmental laws must be obeyed'. See Yuthana Priwan, Kanittha Inchukul and Yuwadee Tunyasiri, 'Warning to dirty industry', *Bangkok Post*, 22 July 1998 for more details.
[408] Vasana Chinvarakorn and Atiya Achakulwisut, 'Lead mine shut down', *Bangkok Post*, 24 April 1998.
[409] Riyatno, *Environmental Law Enforcement and Compliance in Indonesia*, LL.M. thesis, the Australian National University, at 40.

B. Strengths and weaknesses of command and control regulation

As we have seen from the above discussion, sanctions associated with command and control regulation serve as big sticks that can be used to punish pragmatic polluters whose environmental performance fails to meet regulatory requirements, and who will continue to pollute provided it is cheaper to do so than to protect the environment.[410] Pragmatic polluters (or 'rational actors' as economists would call them) are inclined to be responsive to regulation for fear that the stick will be used against them: they are cooperative with legal requirements not because they are altruistic but because the penalties tip the balance so that it becomes more costly to pollute than to pay for pollution prevention. As John Braithwaite wrote in *To Punish or Persuade*:

> One is inclined to listen to the persuasive overtones of an inspector if the consequences of not listening is his replacing the velvet glove with the iron fist.[411]

However, for penalties to work against the pragmatic polluter, the chances of being caught, coupled with the anticipated penalty if this occurs, must exceed the costs of pollution prevention.

Another advantage of the regulatory sanction is its apparent certainty: once the regulated do not meet the regulatory requirements, regulators can simply exercise the sanctions. At the same time, command and control regulation provides regulated firms with a clear insight as to their regulatory obligations, which in turn helps them perceive what the consequences will be if regulatory requirements are not met.[412] Of course, this theoretical certainty may not be apparent in practice, where enforcement may be sporadic or weak, and many breaches may go undetected.

Command and control regulation has other shortcomings, not least of which is that it is expensive and time-consuming.[413] First, it relies heavily on government oversight, thus

[410] See Ian Ayres and John Braithwaite, *Responsive Regulation*, 1992, at 39-41.
[411] John Braithwaite, *To Punish or Persuade*, 1985, at 118.
[412] Rena Steinzor, 'Reinventing Environmental Regulation: The Dangerous Journey from Command to Self-Control', *The Harvard Environmental Law Review*, Vol 22. No 1, 1998, at 104.
[413] Shakeb Afsah, Benoit Laplante and David Wheeler, *Controlling Industrial Pollution: A New Paradigm*, The World Bank Policy Research Working Paper, 1996, at 3.

demanding a number of factors, including expertise and experience among regulators, sufficient regulators, and relevant equipment. However, given that governments usually face the problem of budget insufficiency, which in turn brings about a number of problems such as shortage of manpower and necessary equipment[414], the success of this scheme is unlikely unless certain strategies are simultaneously used. Details of such strategies will be discussed later in this chapter.

Another drawback of command and control is that this scheme is vulnerable to political manipulation[415]. Lack of political will is among the causes of regulatory failure. More importantly, this situation has been aggravated as studies also show that many incumbent politicians often manipulate regulatory policy to serve the interest of themselves or their peer groups. For example, the Reagan and Bush administrations paid little attention to environmental regulation for macroeconomic purposes and environmental regulation was pruned by the former Vice President Quayle's Council on Competitiveness to achieve the goal of economic growth.[416]

Command and control regulation also makes regulators extremely powerful. This could be conducive to 'rent-seeking,' the situation where regulators take advantage of their strict regulation to build themselves up in their own interest.[417]

In Thailand, most rent-seeking cases operate in a similar fashion: regulators use tough regulation as a way to seek advantage for themselves. In doing so, they turn a blind eye to a regulatee's wrongdoing in exchange for benefits provided to them. Such benefits can be in various forms, including overseas tours as discussed above in the Mab Ta Phut case.[418] Importantly, it is usually difficult to find concrete evidence of rent-seeking. However, its pervasiveness, as well as its adverse effect on the success of environmental regulation, can be seen from the cabinet resolution, on 'measures to prevent officials from engaging in corrupt deals with factories' adopted on 4 January 2000.[419]

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[414] See Chapter 4 for more details.
[415] Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy*, at 38-50.
[416] See Eric Orts, 'Reflexive Regulation', at 1237.
[417] Cass Sunstein, 'Constitutionalism after the New Deal', *Harvard Law Review*, 1987, at 448-51. See also Scott Christensen, *et al.*, *The Lessons of East Asia*, A World Bank Publication, 1993, at 20.
[418] See Chapter 3.
[419] These measures include urging the Ministry of Education to improve environmental curriculum on environmental awareness and protection, and mandating the Department of Industrial Work to allow NGOs to have do more role in monitoring plants' environmental performance. For more details see 'Graft clamp approved on dirty deals', *Bangkok Post*, 5 January 2000.

Alongside the rent-seeking phenomenon, command and control can lead to regulatory capture. This situation occurs because regulators are aware that if they are extremely hard on regulated firms, the firms, especially those who are not financially capable of complying with the standards stipulated under the command and control regime, may not be able to survive. This would probably cause a political backlash against the regulators, whose jobs might be at risk.[420] A more common version of regulatory capture occurs when regulators, who spend considerable amounts of time with regulated firms, come to see the world more through the perspective of the regulated. Morover, they may be inclined to maintain a good relationship with industry because they wish to nurture the possibility joining one of the regulated firms in the future (the 'revolving door' syndromes). For these reasons, regulators are prone to end up accommodating the interests of the regulated industry.[421]

Scholars also argue that the command and control system is too static[422], because regulation is normally enacted at a particular time, and for particular purposes; it is therefore not responsive to rapidly changing circumstances. Experience with automobile emissions control under the U.S. *Clean Air Act* during the past two decades serves as a good example. Although emission controls for new cars improved dramatically with strict technology-forcing legislation, vehicle miles travelled (VMT) doubled owing to a number of rapid social changes including the constant increase of suburbanisation, commuting habits, and the number of cars on the road. Essentially, while the strict regulation on new cars prevented the current air pollution from getting worse, it failed to take into consideration the factor of social change. As a result, although the ambient air quality improved in some places, it remains in violation of federal standards in many urban areas such as New York, Chicago, and Los Angeles.[423]

Command and control is likely to produce a very large volume of regulation if the government wants to keep pace with rapid social change. For this reason, a dilemma occurs, as this could bring about difficulty for both regulators and regulated entities to

[420] Neil Gunningham, 'Negotiated Non-Compliance: A Case Study of Regulatory Failure', *Law & Policy*, 1987, at 85.
[421] Peter Yeager, *The Limits of Law: The Public Regulation of Private Pollution*, 1991, at 38. For more details of the capture problem, which is one of the causes of environmental regulatory failure, see Chapter 4.
[422] Eric Orts, at 1238.
[423] Ibid, at 1238-9.

keep up with all regulations (regulatory overload).[424] In developing countries like Thailand, where foreign investment is seen as crucial for economic growth, this situation may discourage the prospective investors, thereby resulting in loss of development opportunity.

C. Making command and control work in Thailand

The above discussion demonstrates that command and control can and should continue to be important in curbing environmental pollution, but that its effectiveness will depend upon the imposition of effective sanctions when enterprises break the law. For this reason, Thailand should maintain this scheme as one of its regulatory policies. However, given its existing weaknesses, it is essential to identify how to make command and control work best in the particular economic, political and cultural context of Thailand. The discussion below offers alternatives to help achieve such a goal.

1. The Enforcement Pyramid Paradigm

There are many different kinds of polluters who bend the rules. Some are inclined to comply with regulation voluntarily, others after they get only one warning letter, while still others will resist unless they are forced into compliance by tough sanctions. Recognising this, Fiona Haines says that smart regulators must be able to manoeuvre a wide range of measures which dovetail with each situation.[425] This implies the use of the sort of enforcement pyramid advocated by John Braithwaite:

> My contention is that compliance is most likely when the regulatory agency displays an explicit enforcement pyramid...Most regulatory action occurs at the base of the pyramid where initially attempts are made to coax compliance by persuasion. The next phase of enforcement escalation is a warning letter; if this fails to secure compliance, civil monetary penalties are imposed; if this fails, criminal prosecution ensues; if this fails, the plant is shut down or a licence to operate is suspended; if this fails, the licence to do business is revoked....the **form** (emphasis in original) of the enforcement pyramid is the subject of the theory, not the content of the particular pyramid.[426]

[424] See Neil Gunningham and Peter Grabosky, at ? . Notably, the authors describe this situation as counterproductive regulatory overload.
[425] Fiona Haines, *Corporate Regulation* , at 222.
[426] Ibid, at 218-9.

Essentially, regulators must ensure that they will rise up the pyramid of enforcement if the measures at the bottom layer of the pyramid are ignored. The way regulators start their enforcement with measures at the bottom, and then move up to the top of the pyramid is consistent with the 'carrot and stick' approach which suggests that regulators start their enforcement with soft measures, but if polluters disobey, tough measures should be applied.[427]

The carrot and stick approach has also been adopted in some Asian countries. In Singapore, the Ministry of Environment provides environmental education to both the public and industry, and the government awards grants. Yet despite these carrot measures, the government of Singapore does not hesitate to enforce the law seriously if non-compliance is uncovered.[428] We refer subsequently to a number of other initiatives in Asian countries involving an increase in penalties and enforcement.

In Thailand, the importance of the carrot and stick approach has been increasingly recognised by relevant authorities. My interviews with senior officials confirmed this, as did my discussions with regulatory officials. For example, Mr Pornthep Teichapaiboon, Deputy Minister, the Ministry of Science, Technology and the Environment, suggested that:

> To revitalise environmental regulation, the strategy of carrot and stick be adopted, i.e., to be tough when circumstances require.[429]

Thai regulators have similarly adopted the carrot and stick approach while undertaking their enforcement tasks. Mr Supaporn Pukasemwarangkul of the Harbour Department said:

> Although people think that I am a stringent law enforcement officer, I have in fact adopted the carrot and stick style. I usually look at the intention of polluters. In so doing, when a non-compliance is detected, we issue a warning notice to give them an

[427] See John Braithwaite, *To Punish or Persuade*, at 118.
[428] Susan de Silva, 'Enforcement and Compliance Priorities' in American Bar Association, *Proceedings of Environmental Priorities in Southeast Asian Nations, 1997*, at 132-3.
[429] The interview was conducted on 11 March 1998.

opportunity to improve the situation first (although the warning is not required by law). If they do not comply with our warning, I will then enforce the law seriously.[430].

As a result of the stick approach that Mr Supaporn and other enforcement officers of the Harbour Department had taken, the defendants in many water pollution cases have had jail and fine sentences imposed. Examples include the case of Samutprakarn Provincial District Prosecutor versus the Thai Paper Development Co. Ltd. (the first defendant) and Mr Surachai Cheewapansri (the second defendant). The plaintiff accused the defendants of discharging wastewater containing chemicals, oil, waste, and fat into the Chao Phraya river, which is a public waterway. The Samutprakarn District Court found that the defendants to imprisonment were guilty as charged, and then rendered a verdict ordering the first defendant to pay the fine of 30, 000 baht, and sentencing the second defendant to imprisonment for 3 months. Also, the defendants had to pay 500,000 baht as compensation to the Harbour Department for the restoration of water quality of the damaged river.

As in many other cases, the defendants appealed to the Court of Appeals, justifying their appeal for the reduction of penalties by using a cultural tactic. In doing so, they mentioned that their business helped boost Thailand's economy, as well as creating jobs for people. The defendants also argued that they themselves always cooperated with the government in any activities related to the benefits of the public. These included donations made to government agencies.

The Court of Appeals upheld the lower court's judgement. Its reasoning in doing so is particularly interesting. The Court pointed out that most of the benefits gained from the defendants' business went to the defendants themselves, while the country gained only a little; that the people who worked with the defendants were few when compared to those who suffered from the defendants' wrongdoings; and that the assets the defendants donated to the government had little value compared to the damage that resulted from their actions.

What is particularly striking is the Court of Appeals's comments on the impact of the Thai culture of gratitude on regulatory enforcement. It suggested that the government has a duty to allocate sufficient funds to regulatory agencies. Otherwise, if the agencies

[430] The interview took place on 16 March 1998.

do not have enough funds and resort to receiving donations from the regulated entities, they will succumb to the culture of gratitude, thus being reluctant to do their job straightforwardly when the donors break the laws[431]: what the Western literature calls regulatory capture.

The use of the carrot and stick approach in Thailand is also evident in the case of air pollution. Take for example, an important case handled by the Bangkok Metropolitan Administration (BMA). Before Thailand underwent the financial crisis which started in 1997, the country's economic growth had been in full swing. Not surprisingly, what came with such growth was a great deal of infrastructure development, which included the construction of buildings in Bangkok and many major cities. However, many of the constructions were undertaken without proper measures for dust prevention, thereby causing a serious air pollution problem in these cities, especially in Bangkok. Dr Pichit Rattakul, the Bangkok Governor, initially warned the firms to cover the construction sites with canvas, as well as to spray water around the sites to prevent the spreading of dust. However, a number of construction operators were not cooperative, so BMA took legal action against these recalcitrants.[432] These tough measures, when applied, yielded successful results. Evidence shows that dust in Bangkok in 1997 was 40 per cent less than it was two years earlier.[433]

Importantly, while the above discussion reveals that Thailand has already adopted the pyramid-of-enforcement paradigm in regulatory enforcement, a central question arises: how can one be sure that Thai regulators will always resort to the measures at the top of the enforcement pyramid when those at the bottom layer are ignored? As shown in Chapter 4, Thai regulators are vulnerable to many factors which have the potential to undermine the application of the enforcement pyramid. These include lack of political will, lack of agency leadership, corruption, and the culture of compromise. As Mr Somjai Nilsittanukroh, an adviser to the Bangkok Governor put it:

> Thai culture requires people to be understanding and sympathetic. This concept is good but problems arise when strict enforcement is required. Regulators are always reluctant to get tough on polluters who cannot afford environmentally friendly technologies.[434]

[431] Judgement of the Court of Appeals, Regional 2, black case no . 2311/2536 (2311/1993), red case no. 89/2537 (89/1994).
[432] Chakkrit Rithmontri, 'Construction Firms Face Tough Action', *Bangkok Post*, 17 May 1997.
[433] 'Tough action reduces dust in Bangkok', *Bangkok Post*, 4 December 1997.
[434] The interview was conducted on 9 January 1997.

In these circumstances, other measures such as severe penalties, tripartism, and publicity of the prosecution outcome are simultaneously needed to make sure that the goals of command and control regulation will be achieved. Details are discussed below.

2. Tough penalties (Big Sticks)

To make the carrot and stick approach possible, there must be penalties at the top of the enforcement pyramid to serve as sticks which regulators can use against the recalcitrants. What kind of sticks are needed in this regard? As many argue, if one considers that the cost of being punished outweighs that of compliance, one is more likely to comply with the law.[435] For this reason, it is essential to increase the size of sticks: to have severe penalties to signal to recalcitrants what they will face if non-compliance is found.[436]

Studies show that many countries increase the penalties to make the punishment more expensive so that it becomes no longer economically rational to break the law. In the United States, stricter penalties are being used as a meant of ensuring environmental protection. Recently, the U.S. Sentencing Commission (hereinafter Commission), upon the suggestion of its Advisory Group on Environmental Sanction, has proposed a new guideline on environmental crime to the Congress. The Commission has suggested the imposition of very stringent conditions on polluters. If the regulated industries cannot meet the requirements, they will face harsh fines with extremely limited mitigation opportunities.[437]

Australia is another example. In 1981, the maximum fines under the *Clean Air Act* and *Clean Water Act* (NSW) were increased fourfold from those in the past. Further, in 1989, the then New South Wales Environment Minister, Tim Moore, announced the

[435] Antonio Oposa, 'Legal Marketing of Environmental Law', *Duke Journal of Comparative & International Law*, 1996, at 276.
[436] See Neil Gunningham and Richard Johnstone, *Regulating Workplace Safety: System and Sanctions*, 1999, at 255-266.
[437] Jason Lemkins, 'Deterring Environmental Crime through Flexible Sentencing: A Proposal for the New Organizational Environmental Sentencing Guidelines', *University of California Law Review*, 1996, at 308-9.

'getting tough on polluters' policy and subsequently introduced the *Environmental Offence and Penalties Act*. Interestingly, this Act brought about a dramatic increase in penalties for environmental offences. The maximum penalty is $ 1 million for a corporate offender and $ 150, 000 or seven years imprisonment, or both for individual offenders found guilty of serious offences.[438] Also, scholars point out that the increase of penalty has been very important in providing incentives to industry to improve its environmental performance.[439]

In the Asian region, a number of countries have also increased penalties to curb environmental pollution. Taiwan, with growing pollution problems, has recently increased penalties for non-compliance from US $ 2,400 to US $ 24,000 per day.[440] Singapore, too, has increased the fine for illegal dumping and contamination of a site from Singapore $ 2,000 to $ 10,000 and/or imprisonment. Moreover, such a jail sentence is mandatory if an offender is convicted for the second time.[441]

Unlike the countries above, Thailand did not rely on the increase of penalties despite the 1992 environmental law reform. Rather, the country focused on introducing a number of innovative measures such as the polluter payss principle, and strict civil liability to help improve the environmental situation.[442] As a result, many regulations still contain penalties which are not suitable for the present situation.

For example, the 1992 *Maintenance of Public Cleanliness* Act has only fines but no jail sentence[443], despite an opportunity for Thai legislators to include such an option when the regulation was enacted to supersede the now-defunct Act which had been in use since 1960. Another example is the *Maintenance of Canals Act* 1903 which is still in operation. With respect to an offence related to water pollution, this Act stipulates that whoever dumps wastes into the canal will be subject to a fine up to 20 baht, which is

[438] Jennifer Norberry, 'Australian Pollution Law: Offences, Penalties, and Regulatory Agencies', a paper delivered to AIC/ACEL Conference *Crime and Environment*, Hobart, at 20-1.
[439] Zada Lipman and Lachlan Roots, 'Protecting the Environment through Criminal Sanctions: The Environmental Offences and Penalties Act 1989 (NSW)', *Environmental and Planning Law Journal*, February 1995, at 30-3.
[440] Andrea Zavadszky, 'Balancing the Legal Scales', *Asian Sustainable Development Report*, June-August 1994, at 28-9.
[441] Susan de Silva, 'Enforcement and Compliance Priorities', at 132-3.
[442] See more details in Chapter 2.
[443] Chatchom Akapin, 'Law Enforcement: An Issue to Be Improved for the Protection of the Thai Environment', *Dulapaha*, 1996, at 91.

less than A $ 1.00, or imprisonment for up to one month, or both fine and imprisonment.[444]

Under these circumstances, it is suggested that Thailand should increase the penalties related to environmental offences.[445] Although harsh penalties *per se* are not sufficient to ensure regulatory success, especially in countries where enforcement is weak such as Thailand, nevertheless they are a prerequisite to successful deterrence and enforcement, providing the big sticks without which enforcement cannot be successful[446], and enabling the courts to punish offenders more heavily. This is particularly important because there has been a remarkable movement by many judges in Thailand to impose heavier penalties on the politicians sued in defamation cases. The judges justified the tougher penalties on the basis that they will force the politicians to be more careful and responsible for what they say about others in public as it can affect society as a whole.[447] Significantly, although such a movement is not directly involved with environmental issues, it does show an attempt from the judiciary to use the law for the sake of civic society[448] which in the future might well extend to environmental issues. If so, then one might anticipate the imposition of tougher penalties for environmental offences in the future. Therefore, penalties stipulated in environmental regulation must be increased to provide law enforcement officers and judges in particular with deterrents for the recalcitrants who have ignored less stringent measures at the lower layers of the pyramid of enforcement.

But how can one be sure that the court will have an opportunity to impose heavy penalties on polluters? In other words, what measures can be taken to urge regulatory officials to bring the case to court? As we have seen earlier, Thai regulatory officials' performance is often paralysed by lack of political will, corruption, regulatory capture, and the culture of compromise. Thus measures must be taken to galvanise government

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[444] Ibid.

[445] See Kasem Snidvongs, 'Thailand's Environmental Priorities', in American Bar Association, *Proceedings of Environmental Priorities in Southeast Asian Nations*, 1997, at 117. More specifically, the late Dhira Phantumvanit advocated that a fine, which is one of the criminal penalties, must be severe enough to act as a deterrent and promote compliance. See Dhira Phantumvanit, 'Infrastructure Development and Pollution Prevention Priorities', in American Bar Association, *Proceedings of Environmental Priorities in Southeast Asian Nations*, 1997, at 92.

[446] See John Braithwaite, *To Punish or Persuade*, at note 30.

[447] Suebpong Unarat, 'Judges lose patience over loose cannons', *Bangkok Post*, 30 August 1999.

[448] Thailand introduced its current Constitution in 1997. Importantly, the purposes of the Constitution include creating a civil society. For further details, see Chapter 7.

enforcers into doing their jobs vigorously. The power of the public can be harnessed to fulfil this role.

3. Tripartism

Traditionally, regulation has been seen as a bipartite activity involving the interaction between regulators and regulated firms By introducing an additional player, the public interest group (PIG), regulatory policy becomes a tripartite activity. According to Ian Ayres and John Braithwaite, the public can be involved as a third party in this regard in three ways: by allowing the PIG access to all the information available to regulators; by providing an opportunity for the PIG to take part in the negotiation between firms and relevant agencies; and by granting the PIG the same standing to prosecute the offenders as the regulators.[449]

Why should the third party be added to the above traditional interaction under command and control regime? As previously discussed, command and control regulation is mainly dependent on government oversight, which is susceptible to many factors leading to regulatory failure such as capture and corruption.[450] Therefore, inclusion of third parties in the regulatory process is seen as a viable method which could help enhance the efficiency of command and control regulation, because the third party creates more transparency and accountability, which could minimise opportunities for capture and corruption.[451] In Victoria, as shown by occupational health and safety research, business cultures were improved towards safety after the relevant third parties, namely health and safety committees and unions, were included.[452]

In Asia, studies show that Japanese environmental regulation allows citizen organisations to get involved with local government and polluters in settling disputes pertaining to pollution. This reduces the workload of the government in litigation.[453]

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[449] Ian Ayres and John Braithwaite, at 57-8. See also Fiona Haines, at 225.
[450] See Chapter 4 for further details.
[451] See Peter Grabosky, 'Public Participation and Co-operation in Crime Prevention Activities', *UNAFEI (United Nations Asia and Far East Institute for the Prevention of Crime and the Treatment of Offenders) Resource Material* Series No 48, March 1996, at 33.
[452] Fiona Haines, at 225.
[453] Andrea Zavadszky, *Asian Sustainable Development Reports*, June-August 1994, at 25.

Indeed, the success of using tripartism in Japan could serve as a good model for Thailand to follow. Dr Pitsamai Eamsakulrat, manager of the Industrial Environmental Management Office, the Federal of Thai Industries, suggested:

> Thailand should take Japan as a good example. A few decades ago, the country was striving hard to recover its economy after they lost in World War II by means of extensive industrialisation. As a result, there was pollution all over Japan. Subsequently, tripartism consisting of government, industry, and people was established and they could manage to solve pollution problems satisfactorily.[454]

Is tripartism appropriate for the circumstances of Thailand? Given the cultural, economic and social differences between Australia, Japan, and Thailand and different degrees of accessibility to environmental information, it would be wrong to assume that what has been achieved in the first two countries can be replicated in Thailand. Thus, in the discussion below we explore in more detail whether, or to what extent, tripartism is appropriate for Thailand.

We have already found that capture and corruption are among the main causes of regulatory failure in that country. These problems generally result from close cooperation between government regulators and firms; in these circumstances, integrating a third party into the regulatory area has considerable potential to attack Thailand's pervasive capture and corruption problems.[455] Mr Chingchai Laohawatanakul, president of C.P. Aquaculture Business Group, an affiliate of C.P. group, a Thai-national multinational company, suggested:

> One way to prevent corruption is to allow the public to participate more. This public participation will provide the check and balance method.[456]

What would be the most appropriate third party to make the concept of tripartism successful? Scholars suggest that tripartism works best when those affected by firms' actions such as trade unions in the case of health and safety, and environmental groups in the case of pollution from industry, are empowered as the third-party in the

[454] The interview took place on 25 December 1996.
[455] See Ian Ayres and John Braithwaite, at 55-6.
[456] The interview was conducted on 8 January 1997.

regulatory process.[457] A central question then arises: does this prescription apply to the case of Thailand?

To answer this question, it is necessary to note that the concept of tripartism was introduced in the 1992 *Enhancement Act* by involving individuals and NGOs in the regulatory process. Such involvement includes allowing an individual to file a complaint to the relevant officials, accusing anyone of committing any environmental offences; and allowing any registered NGOs to represent those who have been injured by pollution in any legal claim they make.[458]

Does empowering both environmental NGOs and individuals to act as a third party guarantee the success of tripartism? We start our investigation by exploring the potential of individuals. Who are supposed to be the individuals actively involved in environmental regulation in Thailand? As far as the problem of air and water pollution from industry is concerned, there are two groups of people with the potential to act as viable third parties: employees and those living in the vicinity of polluting plants, because these people are directly affected by the harmful activities of industry. However, research has found that relying on these two groups falls far short of success because of the nature of Thai culture, details of which are discussed below.

As for the polluting plants' employees, we have already found in previous chapters that regulatory failure in Thailand is attributable to a number of causes, including the culture. It is unlikely that the employees of polluting plants would want to be involved as a third party in monitoring the environmental performance of their employers' plants. Further, even though employees are recognised as a third-party, there is reason to be sceptical about the efficiency of their performance in this role. Because the culture of gratitude has long been deeply rooted in Thai society, most employees feel indebted to their employers who gave them a job. To express this gratitude, they tend not to cause trouble to those employers.[459]

[457] Ian Ayres and John Braithwaite, at 57. See also Fiona Haines, at 225.
[458] See the 1992 *Enhancement Act*, Sections 6,7,and 8. See also Chapter 2 for greater details.
[459] Douglas Tookey, 'Southeast Asian Environmentalism at its Crossroad: Learning Lessons from Thailand's Eclectic Approach to Environmental Law and Policy', *The Georgetown International Environmental Law Review*, 1999, at 328-9.

Turning to the people living near the polluting plants, studies show that Thai culture is a 'culture of compromise' and that the Thais prefer to live in harmony, especially in their neighbourhood. As a result, they normally seek to avoid conflicts with their neighbours. They even put up with their neighbours' wrongdoings which cause harmful effects to their health and the environment, rather than report incidents to the relevant authorities.[460]

Moreover, self-centred behaviour also inhibits those living near the point source of air and water pollution from behaving as an effective third party in protecting the environment. It is evident that many Thai either expect to get jobs from the plants in their neighbourhood or have relatives who work in the plants. As a consequence, they realise that causing trouble to the plants, such as reporting environmental infringements to regulators, could result in the loss of opportunity to get the jobs or cause their relatives to lose their jobs.[461] This assertion is confirmed by the interview statement made by Ms Krittayaporn Tappatat and Mr Titi Jantaengpol, the Industrial Estate Authority of Thailand (IEAT)'s scientists:

> We do believe that vigorous and constant participation from the public will play a significant role in helping improve the state of the environment in Thailand. However, it appears that there are many different kinds of people who participate in this matter...Some have complained because they were disappointed that the plants neither bought their land nor recruited labourers in the local community.[462]

This chapter now turns its investigation to environmental NGOs. Although NGOs in Thailand are gaining popularity, problems of air and water pollution in the country remain at an unsatisfactory level.[463] What impedes these NGOs' achievements?

Research has found that the Thai environmental NGOs have adopted Thai cultural characteristics in doing their jobs; these characteristics include avoidance of confrontation.[464] Accordingly, in contrast to their counterparts in Western countries who

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[460] Ibid.
[461] Sunee Malikamarl, 'Another Option in Remedying those Affected from Pollution Problems', *Dullapaha*, 1996, at 103.
[462] The interview was conducted on 21 January 1998.
[463] Douglas Tookey, 'Southeast Asian Environmentalism at its Crossroad: Learning Lessons from Thailand's Eclectic Approach to Environmental Law and Policy', at 309-10.
[464] Eugene Clark and Suwit Laohasiriwong, 'Thailand's Quest for Sustainable Development', *The Australian Journal of Natural Resources Law and Policy*, 1996, at 77-8.

debate environmental issues bluntly, most Thai NGOs have focused on research, public education, and provision of consultation to those whose well-being is affected by any activities harmful to health and the environment.[465] They have not done much to challenge directly the environmentally destructive practices of parts of Thai industry or the inadequate performance of government regulatory officials.

Consistent with this cultural situation, the relationship between some of the foremost NGOs and the Thai government is that of partnership. As Philippa England argues, some environmental NGOs have from time to time been assigned by government agencies to conduct research for them as well as to collaborate in government-funded projects. For example, TEI has produced many reports specifically designed for implementation by government agencies.[466] Currently, this leading environmental NGO is cooperating with the Ministry of Education and the National Energy Bureau in the Dawn Project previously discussed in the section of environmental education.[467]

Another factor facilitates a partnership between the Thai NGOs and government: the selection process of NGO representatives as members on the National Environmental Board (NEB). The 1992 *Enhancement Act* allows the inclusion of representatives from the private sector, including NGOs as members on the NEB. Currently, there are four NGO representatives appointed as members. It is however notable that, apart from the members who are representatives from environmental NGOs, the NEB members are drawn from eleven incumbent politicians, four permanent government officials, and four representatives from the private sector other than environmental NGOs.[468] Astonishingly, the four representatives from environmental NGOs are arbitrarily selected by the government, rather than nominated by NGOs themselves.[469] Given the Thai cultural attributes described earlier, it can be anticipated that the NGO representatives who have been selected as the NEB members will be grateful to the government and would be unlikely to be critical of government policy, but rather will take a compromising and conciliatory approach.

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[465] Philippa England, 'Friend of Foe? Environmental Advocacy and the Role of Law in Thailand and Malaysia', *The Australian Journal of Natural Resources Law and Policy*, 1998, at 6, 12-3.
[466] Ibid.
[467] See the Environmental Education and Training section in this chapter.
[468] See the 1992 *Enhancement Act*, Section 12.
[469] Sunee Malikamarl, at 73-4.

It is also conceivable that many NGOs have adopted a cooperative approach towards government agencies due to the lack of clear legislative support for their taking a stronger or more confrontational attitude. As Chapter 4 suggests, the inclusion of the word 'may' in the 1992 *Enhancement Act*'s provisions on the right to know any information regarding environmental issues, and on the assistance which the registered NGOs can receive from the government, has made these provisions ambiguous, thereby becoming a cause of regulatory failure.[470] In sum, many NGOs take an accommodative approach not merely because of the importance of compromise in Thai culture, but also because they realise that liaison with the government is the best strategy to obtain information from government agencies in the absence of supporting legislation.[471]

Making tripartism work in Thailand

What should be done to make tripartism work best in Thailand? First, the word 'may' should be deleted from Sections 6, and 8 of the 1992 *Enhancement Act* to overcome the problem of ambiguity, which forces NGOs to take a compromising approach.[472]

Second, more emphasis should be given to education and information so that all the people concerned, the plants' employees, people living near polluting plants, and the general public, are fully aware that the consequences of air and water pollution are too harmful to put up with, and that they have the right to be involved in the regulatory process. It is hoped that people will be aroused to stand up for their rights to live or work in a clean environment.

Third, incentives must be introduced to attract the public to take part in the regulatory process as a third party. Indeed, rewards for information leading to the identification and arrest of offenders have long been used, especially in Western societies.[473] In the United States, a State of Alabama statute allows individuals who provide information conducive to prosecution of drug offenders to receive a percentage of the value of any

[470] See Chapter 4 for more details.
[471] See Philippa England, note 29, at 13.
[472] As for stakeholders' demands for the deletion of the word 'may' from Sections 6, and 8 of the 1992 *Enhancement Act*, see Chapter 4 for more details.
[473] Peter Grabosky, *UNAFEI (United Nations Asia and Far East Institute for the Prevention of Crime and the Treatment of Offenders) Resource Material* Series No 48, March 1996, at 36.

property recovered if the prosecution is successful.[474] Another is the crimestoppers program currently existing in Australia, Canada, Great Britain, New Zealand, and the United States, in which television and radio stations donate free time to broadcast information on unsolved crimes. Members of the public are encouraged to call with information on the identity or whereabouts of the suspect. To make this program work, rewards are offered with anonymity guaranteed for any information leading to a conviction.[475]

Thailand, too, established a reward system under the 'big bang' environmental law reform in 1992 to enhance the efficiency of command and control regulation. The system is included in the 1992 *Maintenance of Public Cleanliness Act* (hereinafter the Maintenance Act) by allowing a person who has witnessed any action criminalised under this legislation to report to the government authority. In the event that the offender is ordered to pay a fine, the person who has made the report will be awarded half the amount of the fine.[476] However, the problems of air and water pollution in Thailand remain despite such incentives.

To find out why the incentive approach indicated in the preceding paragraph has not helped to improve the environmental situation in Thailand, it is necessary to note that such an approach was included in the 1992 *Maintenance Act* only, while there are a number of laws related to the environment which were reformed in the same year. These include the 1992 *Enhancement Act*; the 1992 *Factory Act*, and the 1992 *Public Health Act*. Also, it appears that the 1992 *Maintenance Act* carries the lightest penalties among all the environmental regulations reformed in the same year. The maximum fine under this Act is only ten thousand baht (around A $ 400).

It is interesting, in regard to incentives, that an informant will be rewarded only if the case is jointly settled by certain authorities, the local officer and police investigator, and the offender also agrees to pay a fine to have the case settled. If the offender does not agree to pay a fine, the case will be passed to the public prosecutor. If the prosecutor decides to file a suit, the case will then be passed to the court. Astonishingly, even if the

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[474] Ibid.

[475] Dennis Rosenbaum, Arthur Lurigio, and Paul Lavrakas, 'Enhancing Citizen Participation and Solving Serious Crime: a National Evaluation of Crime Stoppers Programs', *Crime and Delinquency*, 1989, at 401-20.

[476] See Sections 48, and 51 of the 1992 Maintenance of Public Cleanliness Act. See also Sunee Mallikamarl, *Environmental Law Enforcement*, 1998, at 77.

court eventually finds the defendant guilty and convicts him or her and imposes a fine (there is no jail sentence under the 1992 *Maintenance Act*), the informant will not be rewarded.[477]

Considering the small amount of the rewards, as well as the slim chance of receiving them in exchange for being an informant under the 1992 *Maintenance Act*, it is not surprising that this incentive provision does not successfully encourage the public to provide sufficient information to the government regulators as a third party.

The mechanism for the provision of rewards should be improved. The informant should get the reward regardless of how the case is finalised, by either the out-of-court settlement, or the court verdict. A more sceptical view would be that the application of tripartism through the reward approach is so far of symbolic value only, and that it is no coincidence that it is limited to the 1992 *Maintenance Act*. To make tripartism work effectively in Thailand, it would be necessary to have such rewards available in other laws related to environmental protection such as the 1992 *Enhancement Act*, the 1992 *Factory Act*, and the 1992 *Public Health Act* as well.

4. Publicity of Prosecution Outcome

Loss of reputation through adverse publicity has become a grave concern for enterprises as it could result in a loss of customers.[478] More specifically to the environmental issue, extensive research has found that the market is continually moving towards environmentally friendly products. For this reason, firms whose products are considered detrimental to the environment are likely to lose their market share.

In view of this, the outcome of prosecution should be made publicly available. Indeed, publicity for the prosecution outcome is one step forward from the disclosure of environmental information discussed earlier in this chapter: the publicity we are now discussing has its focus on dissemination of the prosecution outcome. Studies show that publicity has been suggested by many as an effective method of regulatory sanction.[479]

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[477] See the Maintenance of Public Cleanliness Act 1992, Section 48.
[478] See Brent Fisse and John Braihwaite, *The Impact of Publicity on Corporate Offenders*, 1983.
[479] Ibid.

Scholars suggest that publicity should be made a part of all kinds of sanctions, including conviction, fines, community service orders, and corporate probation[480]. In environmental cases, publicity in this regard occurs in many countries, including the United States. Recently, a judge in Cincinnati ordered a corporate executive whose company contaminated the groundwater with carcinogenic chemicals to write letters of apology, and to have such letters as well as the prosecution outcome published in the newspaper.[481]

Singapore is another example. The country is committed to a clean environment, thus emphasising the anti-social behaviour of litterers. The government has begun a campaign with the slogan 'do not litter, people look at you differently'. To provide 'teeth' for this campaign, Singapore has introduced the corrective work orders (CWO) scheme as one of various penalties provided under the Anti-littering law. A person convicted of littering could undergo a penalty of community service such as cleaning housing estates. In doing this, the convicted litterer must wear a big yellow sign saying 'CWO'. Then the press publishes their photographs. So far, this approach works so successfully that Singapore has long been renowned as a very clean country.[482]

Will publicity and other 'shaming' devices work to improve environmental outcomes in Thailand? Like many other Asians, the Thai consider the loss of face as the most unbearable sanction.[483] Similarly, Prayut Payutto, a Buddhist monk, postulates that many Thai prefer to show others that they are doing well; thus they tend to spend money on extravagant items such as luxurious cars, expensive ornaments, and importedly brand-named garments. They will feel that they lose face if they do not have such items while others do.[484] These people are even willing to be in debt just to avoid losing face in society.

These cultural attributes of the Thai can be turned into an opportunity to improve the efficiency of command and control regulation by using prosecution publicity as a potent sanction in its own right; for the Thai realise that they will lose face if they appear in the

[480] Neil Gunningham and Richard Johnstone, *Rethinking Occupational Health and Safety Regulation*, at 333-4.
[481] Dan Kahan and Eric Posner, 'Shaming White-Collar Criminals: A Proposal for Reform of the Federal Sentencing Guidelines', *The Journal of Law & Economics*, April 1999, at 367.
[482] Susan de Silva, at 133.
[483] Antonio Oposa Jr, 'Legal Marketing of Environmental Law', *Duke Journal of Comparative & International Law*, 1996, at 277.
[484] See Prayut Payutto, *Buddhist Economics*, 1994, at 12-13.

news as criminals, and the fear of this may be a particularly powerful incentive to comply with their environmental obligations under the law.

But are the Thai government agencies capable of developing and imposing an adverse publicity sanctions policy, and do they have sufficient resources to make such a policy effective? Currently, some agencies provide a regular update to the public on environmental matters. For example, the Office of the Environmental Policy and Planning produces a yearly report on the state of Thailand's environment. The numbers of such official reports are however usually proportional to the government budgets, which are very limited, as shown earlier.[485] This limitation jeopardises the situation as the reports are available to the organisations interested in environmental issues only, instead of the general public. To overcome this problem, the publicity should be made through the public media in addition to government reports, to ensure that lay people know about the offenders' environmentally wrongful behaviour. Essentially, such publicity must contain names of the offenders, details of their acts, and the consequences of the wrongdoing. So far, the Bangkok Metropolitan Administration (BMA) has used this tactic as one of many ways to tackle polluters. As discussed in the section on environmental information disclosure, the media disclosed all the details mentioned above in the light of BMA's disclosure.[486]

Of course, expenses must be incurred by the public media such as newspapers. Given the government budget limitation, it is suggested that the convicted defendant should pay for publicity expenses. One may argue that the above suggestion is not pragmatic as at present there is no applicable law in Thailand requiring the defendant in environmental cases to pay for publicity about conviction. However, there is a provision under the Criminal Code allowing the judge in a defamation case to publish the judgement in a local newspaper at the expense of the convicted defendant.[487] Hence, this provision serves as a precedent for the Thai policy-makers to consider equipping the existing environmental regulation with the same kind of provision.

D. Command and control in the Thai cultural and political context

[485] Budget limitation brings a number of problems such as manpower shortage, and lack of sophisticated equipment necessary for improvements to the environmental situation. See Chapter 4 for details.
[486] Poona Antaseeda, 'City to act against plants dumping waste into canals', *Bangkok Post*, 17 June 1997.
[487] See the 1992 Penal Code of Thailand, Section 332.

This section has shown that the command and control system, like most other policy instruments, has both strengths and weaknesses. Strategically, it is imperative to build on the strengths while as far as possible compensating for, or reducing, the weaknesses.

Unfortunately, the weaknesses of command and control are particularly distinct in the Thai political and social context. First, there is usually a considerable lack of political will, not only to enact appropriate and effective command and control regulation, but also to enforce it. As we have found when examining the variability of the sanctions provided under Thai pollution law, while some statutes are equipped with potentially tough punishments, including imprisonment or the power to shut down a facility, others contain only the very weakest of penalties. Although the explanation for this is complex, one aspect of it at least is the reluctance of Thai legislators to enact severe penalties against powerful business people to whom they owe various obligations.

However, more important and more insidious than the failure to enact tough environmental laws, is the failure to enforce them. We saw in Part I (and through specific examples in this chapter) how corruption, bribes, rent-seeking, reciprocal obligations, compromise and regulatory capture have seriously undermined the capacity of regulatory agencies to enforce the law. We have seen that some severe sanctions, such as the power to close down a business, make regulators even more reluctant to use them. Furthermore, when this is coupled with inadequate regulatory budgets, quiet a common phenomenon in Thailand, the enforcement capacity of the regulators is inevitably undermined.

This section argued that a pyramidal enforcement policy, using both the carrot and the stick, was likely to be the most appropriate in Thailand, although it recognised that the difficulties identified in the preceding paragraph were likely to make it harder to use punitive measures when necessary. Even so, this section was able to cite cases and circumstances where such measures were actually used. This led the section to conclude that, notwithstanding the considerable limitations on the use of command and control in Thailand, it is still an essential policy instrument, on which regulators can rely, at least in some circumstances, despite the pressures upon them to compromise and weaken their enforcement efforts.

We saw how the Court of Appeals has, in a number of contexts, been willing to impose severe penalties on politically powerful individuals and organisations. Again, this suggests that despite the pervasiveness of the culture of gratitude and of corruption, there are circumstances were command and control and the imposition of penalties at the top of the enforcement pyramid are credible and will be implemented effectively.

Finally, this section has emphasised the importance of tripartism as the mechanism having a strong potential to compensate the vulnerabilities of Thai regulators to capture, compromise and corruption. Although it was found that in Thailand trade unions and workers were unlikely to operate as effective third parties because as they recognise a strong allegiance to their employer according to the culture of gratitude, we also found that environmental NGOs can and already to some extent do, play an important role in both challenging the polluting behaviour of industry, and galvanising some regulatory agencies to take appropriate action against such behaviour. But despite this, the Thai cultural characteristic of compromise makes it difficult and even unlikely that NGOs will take the sort of 'direct action' that environmental groups such as Greenpeace have taken in Europe.

However, looking to the positive side of this cultural characteristic, the chances of constructive partnerships between environmental NGOs and business or government are very high. There is reason to believe that these partnerships will bring about the most positive initiatives in the future. We also made a number of specific recommendations on how to make tripartism work best in Thailand, which include how publicity and transparency could best be used to make regulation more effective. This last strategy is particularly promising given the importance in Thai culture of avoiding 'losing face'.

Conclusion

At first glance, the continuing influence of command and control regulation might seem surprising, given a variety of alternative policy instruments that have been developed and implemented over the last two decades. But no single policy instrument used in isolation can be successful in addressing all environmental problems, or in changing the behaviour of all polluters. Accordingly, although many innovative measures have been introduced (ranging from a persuasive approach such as education, to a quasi-

coercive approach such as self-regulation) it is unlikely that any one of them will provide a complete solution.

Moreover, none of these 'new generation' policy instruments can be relied upon exclusively for satisfactory environmental outcomes. For example, many of the policy innovations are essentially voluntaristic, and lack sanctions that are powerful enough to change the behaviour of recalcitrants. Many unscrupulous polluters want to reap as much profit as they can, regardless of the harmful impact of their activities, and will ignore information, education and exhortations to improve their environmental performance so long as it is cheaper to pollute than to comply with their environmental responsibilities.[488] Examples include free-riders and dishonest audits.

Given that command and control regulation does carry with it not only environmental responsibilities, but a range of sanctions if these are breached, it continues to play a vital role. Firms usually respond to environmental regulations, particularly if they have experienced monitoring and inspection, and even more so if they have been fined or sanctioned[489]. In the case of recalcitrants, the possibility of serious punishment serves as the threat which could influence them to comply with their legal obligations.[490]. This is why command and control regulation, which usually contains powerful penalties as regulatory sanctions, has a strong potential to address environmental problems, provided certain political and cultural constraints can be overcome.

However, this is not to say that the goal of environmental protection can be only achieved when command and control is applied. Rather, this chapter has pointed out some serious limitations of command and control regulation in the Thai cultural and political context, and suggested that command and control is a crucial but flawed policy instrument which is likely to achieve only partial success in Thailand.

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[488] According to Antonio Oposa, if a person considers that the cost of being punished outweighs the cost of compliance, he or she will choose to comply with the law. For more details, see Antonio Oposa, 'Legal Marketing of Environmental Law', *Duke Journal of Comparative & International Law*, 1996, at 276.

[489] Theodore Panayotou, Todd Schatzki and Qwanruedee Limvorapitak, 'Differential Industry Response to Formal and Informal Environmental Regulations in Newly Industrializing Economies: The Case of Thailand'.

[490] David Hanrahan, 'Persuasion & Incentives: New Ways to Achieve a Cleaner World', in the World Bank Group, *Environment Matters*, Winter Spring 1997, printed from the Internet on www. NIPR.org.envimat/index.htm, at 4. Similarly, Antonio Oposa suggests that the law must contain an aspect of punishment in order to modify human behaviour and serve as a deterrent. See Antonio Oposa, 'Legal Marketing of Environmental Law ', at 276 for more details.

It has also been argued that relatively innovative methods such as economic instruments and self-regulation which normally require only loose monitoring from the government, can yield effective results providing they are backed with the tough sanctions which can only be embedded in command and control regulation. This confirms with the saying 'walk softly but carry a big stick' [491].

The policy mix described in this chapter can be reinforced and complemented by a variety of additional strategies and instruments with an international dimension. Details are discussed in the next chapter.

[491] Antonio Oposa, 'Legal Marketing of Environmental Law' in *Duke Journal of Comparative & International Law*, 1996, at 276.

Chapter 7

International Dimensions of Thai Environmental Regulation

Introduction

So far, this thesis has focused mainly on domestic events: events influenced by local circumstances within Thailand. It has described the strengths, and more importantly, the weaknesses, of the existing environmental law and its enforcement. Also, it has identified the main causes of this regulatory failure, including lack of political will, inability of many small and medium firms to afford environmental technology, and corruption. The thesis has also examined a number of possible reforms at domestic level and how these might be achieved.

However, Thailand's response to environmental degradation is influenced not just by politics, culture, economics and broader social forces within the country but also by international events and pressures. Accordingly, to gain a profound insight into the possible forces for regulatory reform, it is as important to examine influences *external* to Thailand as it is to consider internal forces.

To fulfil that task, this chapter explores important ways in which the international community, or international companies, either through treaties, international trade, international organisations, or other less obvious, but no less important mechanisms, can galvanise Thailand into improving its environmental performance generally or its environmental regulation specifically.

The chapter focuses particularly upon those instruments which are likely to be most successful in achieving change in the two environmental issues which are the subject of this thesis: air and water pollution. Somewhat less attention is paid to international treaties, because only a limited number of such treaties deal with these issues directly (unless one treats these issues as including ozone protection and greenhouse gas emissions), and because the literature on such issues is large, the arguments are well rehearsed, and there is little new which can be added.

In addition, there is much of interest to be said about other sources of international environmental regulation, which includes so-called 'soft law' (including Agenda 21); the fast-increasing role of international institutions such as the IMF and the World Bank; the GATT and international trade; and the emerging significance of the ISO 14000 series of international environmental management standards. For these reasons, the chapter begins with a brief and largely descriptive account of the importance of various international treaties, before examining in more detail, and more critically, the wider range of instruments identified above.

I. International Environmental Law: Sources and Character

The traditional concept of territorial sovereignty within states has served to justify their pursuit of their own national development policies free from broader international concerns including that of environmental degradation.[1] In recognition of the short-sighted and damaging effect of this approach, there have been numerous attempts to balance it with broader considerations of environmental protection at the global level. These include the introduction of international environmental law, the purpose of which is to persuade all countries to play by the same international rules.

What kind of law or regulation is acceptable to an international community which consists of states with very different interests? Ideally, international law must be designed to protect the global environment for the benefit of all countries rather than one particular country. The first successful formulation of an international environmental regulatory framework designed to achieve such a goal took place at the United Nations Stockholm Conference on the Human Environment in 1972. The framework, which is better known as the Stockholm Declaration, was based on the principle that states on the one hand have rights to exploit their own natural resources, but on the other hand also have responsibilities to ensure that any activities undertaken within their jurisdiction will not cause damage to the environment of other states.[2]

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[1] Alan E. Boyle, 'Environment and Development', *Third World Legal Studies*, 1993, at 95.

[2] Principle 21 of the Stockholm Declaration: states that 'States have, in accordance with the Charter of the United Nations and the principle of international law, the sovereign rights to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction and control do not cause damages to the environment of other states or of areas beyond the limits of national jurisdiction', Report on the U.N. Conference on the Human Environment, Stockholm, 1972, U.N.Doc. A/CONF/48/14/Riv. 1, cited , ibid, 96-7.

Since the Stockholm Declaration, international environmental law has continued to develop, seeking to become an effective means to improve the environment both of individual states and of the world. With regard to the agreements dealing with air and water pollution, there has so far been only very limited activity, at least at the level of international treaties. This is explicable in terms of the limited trans-border and international implications of these forms of pollution compared to other related problems of a transparently global nature. In the latter category fall such agreements as the Vienna Convention for the Protection of the Ozone Layer, which was subsequently improved by the Montreal Protocol on Substances that Deplete the Ozone Layer, and the London Amendments; and the United Nations Framework Convention on Climate Change.[3] While these agreements will be referred to below in order to provide insights into Thailand's general approach to adoption and implementation of international treaties, greater attention will be paid to those aspects of the Rio Declaration and Agenda 21 which do have direct implications for air and water pollution.

A: Sources of International Environmental Law

Before investigating the roles of international environmental law in the progress of Thai environmental regulation, it is necessary to indicate briefly what international environmental law is, how it develops, and what character it has. Traditional sources of international law are treaties, international custom, principles of international law, and the writing of jurists.[4] Arguably, as the International Law Commission has proposed, resolutions of international organisations and decisions of the International Court of Justice and of international tribunals should be regarded as additional sources of international law.[5] In the specific analysis of international environmental law, scholars however argue that treaties and international custom are the primary sources of this kind of law.[6]

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[3] Anthony D'Amato and Kirsten Engel (eds.), *International Environmental Law Anthology*, 1996, at 3-5.

[4] See Article 38 (1) of the Statute of the International Court of Justice.

[5] Philip Sands, *Principles of International Environmental Law I: Frameworks, Standards and Implementation*, 1995, at 103.

[6] James Cameron, 'Future Directions in International Environmental Law', *The Dalhousie Law Journal*, 1997, at 124. See also, Alexander S. Timoshenko, 'International Environmental Law: Fundamental Aspects', *Revista Juridica UATR*, 1990, at 661.

Treaties are by and large more explicit and more readily identifiable than international custom.[7] A question which arises here is: what makes international custom become another important source of international environmental law along with treaties? Given that treaties are made on a basis of agreements usually between multiple states, it is difficult to include within them, sufficient detail to resolve the tensions between and satisfy all the parties concerned.[8] Many treaties therefore are couched in broad terms, providing flexibility and ambiguity sufficient to achieve a compromise between various contending interests. Their broad and general nature also enables them to be readily adapted according to future contingency. Besides, treaty-making is a time-consuming process which cannot keep pace with the environmental problems caused by any state's actions. As a result, international custom serves to fill the legal vacuum created by the non-specific nature of many treaties. Increasingly, international custom plays a leading role in establishing fundamental principles of international environmental regulation.[9]

How has international custom evolved? It does not originate from a formal legislative process; rather, it derives from other sources, including state practice. What kind of state practice is a key facilitator in developing international custom? James Cameron suggests that a state practice must be the actual conduct of states which indicates a repeated application of a particular custom. Such conduct includes participation in treaty negotiation and ratification. Importantly, if a state does not persistently object to a practice of other states, binding obligations may be created in light of evidence of such a practice.[10] In the Trail Smelter case between the U.S. and Canada, the arbitration imposed liability for environmental harm between states. This was subsequently developed to the widely recognised customary rule and articulated in Principle 21 of the Stockholm Declaration, and has been further incorporated in a number of treaties.[11]

B. Character of International Environmental Law: A Hard Law-Soft Law Debate

International environmental obligations are, no matter from what sources they originated, contemporarily found in the form of both hard and soft law. Hard law consists of principles, whether found in treaties or customary international law, which

[7] Alexander S. Timoshenko, 'International Environmental Law: Fundamental Aspects', *Revista Juridica U.P.R.*, 1990, at 662.
[8] Abram Chayes and Antonia Chayes, *The New Sovereignty*, 1995, at 10.
[9] Ibid, 661-2.
[10] James Cameron, 124-5.
[11] Ibid, at 125

create binding obligations for states and which are enforceable under international law. In contrast, soft law is not legally binding in itself. It nevertheless is important in making international environmental law by creating political commitments among countries concerned.[12]

Soft law can be found in many pieces of international environmental regulation. As scholars suggest, soft law can take many forms, which include declarations, statements of principle, codes of conduct, recommendations and resolutions of international organisations, and draft proposals elaborated by groups of experts.[13] Extensive research has found that the development of soft law norms in respect of the environment began immediately after the emergence of the Stockholm Declaration in 1972.[14] Regarding air and water pollution, important soft law includes the Rio Declaration 1992 and the Agenda 21.

II. International law as it affects Thailand's domestic environmental responsibilities

A. International law that has 'direct' effects on Thailand's air and water pollution laws

Issues of air and water pollution, are dealt with by international environmental law in the form of soft laws. These include the Stockholm Declaration; the Rio Declaration on Environment and Development; and Agenda 21.

1. The Stockholm Declaration

The event which provided a breakthrough in global environmental law and regulation was the Stockholm Declaration, which established that environment was a matter of international concern which should be regulated through international action. Most significantly, it attempted to reconcile sovereign rights and international obligations. Principle 21 of the Declaration attempts to balance the right of a state to control all

[12] Anthony D'Amato and Kirsten Engel (eds), *International Environmental Law Anthology*, at 56.
[13] Peter Drahos, 'Thinking strategically about intellectual property rights', *Telecommunications Policy*, 1997, at 205-6. See also Anthony D'Amato and Kirsten Engel (eds), *International Environmental Law Anthology* at 56.
[14] Anthony D'Amato and Kirsten Engel (eds), at 55.

matters within its territory with a responsibility to ensure that what is undertaken within one state does not cause damaging effects to others.[15]

However, the existence of a law does not necessarily mean that it will be successfully implemented.[16] Undoubtedly, the establishment of an institution authorised to coordinate with member countries is a necessary, but not sufficient step towards successful implementation, and for this reason, the United Nations Environment Programme (UNEP) was established by the General Assembly of the United Nations following the Stockholm Convention in 1972.[17] UNEP has so far played a key role as an international organisation responsible for dealing with environmental issues at the global level.[18]

Stockholm Declaration and its Effect on Thailand

The effect of the Stockholm Declaration upon Thai domestic law is direct. Only three years after the Declaration, Thailand promulgated the now-defunct *1975 Enhancement Act* as its first piece of comprehensive environmental regulation. Both the National Environmental Board and the Office of the National Committee on the Environment were established by this Act. These developments were precipitated by the Stockholm Conference, with the government authorities in Thailand addressing environmental issues for the first time.[19]

Furthermore, when Thailand conducted the 'big bang' reform of environmental regulation in 1992, the country was again influenced by some important concepts which

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[15] Louis B. Sohn, 'The Stockholm Declaration on the Human Environment', *Harvard International Law Journal*, Vol. 14, 1973, at 445.

[16] As discussed in Chapter 4, the ultimate goal of a regulatory scheme is not achieved at the completion of legislative promulgation (Peter Yeager, *The Limits of Law: The Public Regulation of Private Pollution*, 1991, at 29). For more discussion, see Ian Ayres and John Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate*, 1992, at 125; and 'Cheryl Wasserman, 'The Principle of Environmental Enforcement and Beyond: Building Institutional Capacity,' a paper delivered in the Third International Conference on Environmental Enforcement, 1994, at 16.

[17] See Report of the United Nations Conference on the Human Environment, 1972, at 29, U.N. Doc. A/CONF.48/14/Rev.1, U.N. Sales No. E. 73 II. A.14 (1972), cited in Daniel C.K. Chow, 'Recognizing the Environmental Costs of the Recognition Problem: The Advantages of Taiwan's Direct Participation in International Environmental Law Treaties', *Stanford Environmental Law Journal*, 1995, at 259

[18] Amornpot Kullawijit, 'Environmental Problem: Depletion of the Ozone Layer', *Dullapaha*, at 150-1

[19] Sunee Mallikamarl, *Environmental Law Enforcement*, 1997, at 9.

were initially incorporated in the Stockholm Declaration. The concepts include establishment of a planning institution, controlling the environment at the national level, the use of public participation, and incentive measures which include an environmental fund.[20] These were contained in the *1992 Enhancement Act* some twenty years after the Stockholm Declaration.

2. The Rio Declaration on Environment and Development

The Rio Declaration on Environment and Development is the agreement of intention jointly made by countries attending the United Nations Conference on Environment and Development (UNCED). It is better known as the Rio Declaration. Since the Rio Declaration, Agenda 21 and the Framework Convention on Climate Change 1992 (described above) which are investigated in this chapter, emanated from the same international conference, UNCED, it is useful to begin with a brief discussion on UNCED.

The conference was initiated by the United Nations General Assembly in 1989 and held at Rio de Janeiro during 3-14 June 1992.[21] What is the purpose of UNCED? According to the United Nations General Assembly resolution 44/228, the mandate of UNCED included to elaborate strategies and measures to halt and reverse the effects of environmental degradation in the context of increased national and international efforts to promote sustainable and environmentally sound development in all countries. It also recognised that the promotion of economic growth in developing countries is essential to address problems of environmental degradation.[22]

UNCED was attended by approximately 20,000 people from 178 countries, many of whom were heads of states and government leaders. From of Thailand, Princess Chulapornwalailaksa attended the conference as both the representative of the King of Thailand and the leader of Thai delegates. Records show that it was the first international conference ever attended by so many heads of states. Also, it was the first

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[20] See Stockholm Declaration, Principles 17, 19, and 12, and the 1992 Enhancement Act, Sections 12, 6-8, and 22-23. See also Chapter 2 for more details.

[21] Office of Environmental Policy and Planning (1996), *Convention on Biological Diversity: Think Globally and Perform Nationally*, at 119.

[22] See Agenda 21, Chapter 38, 38.1.

time many NGOs, as well as media from many different countries participated in a world conference. As a result, UNCED has also been dubbed the "Earth Summit".[23]

UNCED generated five international instruments.[24] However, as this thesis has its focus on the issues of air and water pollution, only the Rio Declaration on Environment and Development and Agenda 21 are discussed here. What is contained in the Rio Declaration? Notably, it revisits and reiterates Principle 21 of the Stockholm Declaration by confirming the rights of states to exploit their own resources pursuant to their environmental and developmental policies as long as the states bear a responsibility to ensure that activities conducted within their jurisdiction do not cause damaging consequences to the environment of other states or of areas beyond national jurisdiction.[25]

Furthermore, the Rio Declaration introduces a number of central tenets for the concept of sustainable development: integration of environmental protection in the development process to achieve a goal of sustainable development[26]; facilitation and encouragement of public awareness and participation by making information available[27]; application of the precautionary approach[28]; and environmental impact assessment[29].

The Rio Declaration and its Effect on Thailand

Although the Rio Declaration, as soft law, lacks legal binding status, it has created political commitment among the countries which attended and ratified the conference. In the case of Thailand, extensive research has found that the country is generally keen to enhance its image at the international level.[30] Initially, Thailand showed its support

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[23] Office of Environmental Policy and Planning, at 119, 130-1.

[24] Ben Boer, 'Environmental Law and the South Pacific: Law of the Sea Issues', cited in Ben Boer, 'The Globalisation of Environmental Law: the Role of the United Nations', *Melbourne University Law Review*, 1995, at 103.

[25] See the Rio Declaration, Principle 2. Notably, Peter Malanczuk observes that the phrase 'and developmental' was added to the original words in Principle 21 of the Stockholm Declaration. He however suggests that while the addition seems to emphasise the sovereignty of developing countries with respect to their development policies, it is in fact necessary for it is to be understood that the use of resources is for development purposes. For more detail, see Peter Malanczuk, 'Sustainable Development: Some Critical Thoughts in the Light of the Rio Conference', in Konrad Ginther et al., eds, *Sustainable Development and Good Governance*, at 30.

[26] See the Rio Declaration, Principle 4.

[27] Ibid, Principle 10.

[28] Ibid, Principle 15.

[29] Ibid, Principle 17.

[30] Office of Environmental Policy and Planning, at 132. See also the interview statement of Dr Suvit Yodmanee, Director and Representative of UNEP in Asia and Pacific Region, *supra*.

by ratifying this piece of international regulation. Such ratification has become a driving force for the Thai government to adopt many of the principles and recommendations of the Rio Declaration, which will, in turn, help improve the environmental situation in Thailand. For example, the concept of sustainable development introduced in the Rio Declaration has been integrated into Thailand's Eighth National Economic and Social Development Plan which is effective for the period 1997-2001[31], and its Policy and Prospective Plan for Enhancement and Conservation of National Environmental Quality, 1997-2016.[32]

3. Agenda 21

Agenda 21 is arguably the most important document to emerge from the Rio process, and it is important to begin by emphasising its legal status. Agenda 21 is not an international treaty which is legally binding upon the member countries. Rather, it has a "soft law" status as it is merely made up of a number of suggestions and recommendations, many of which are written in terms of what nations "should" rather than "shall" do.[33] Agenda 21 nevertheless serves as a comprehensive framework of an action plan to which all nations attending UNCED have committed themselves.[34] Its main objective is to encourage global actions for achieving the goal of sustainable development.[35]

What does the Agenda 21 contain? Significantly, it has many mechanisms to make the action plan viable. These include instruments and enforcement mechanisms at every level of government, improving or restructuring the decision-making process in order that the socio-economic and environmental issues are fully integrated.[36] Further, it also deals with international institutional arrangements, as well as reinforcement of the role of UNEP, especially in providing technical, legal and institutional advice to governments to establish and enhance national legal and institutional frameworks. It also promotes the strengthening of the roles of major groups, including NGOs, business

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[31] Chavalit Yongchaiyudh, 'Foreword', in *Thailand's Action for Sustainable Development*.

[32] Office of Environmental Policy and Planning, *Thailand's Policy and Prospective Plan for Enhancement and Conservation of National Environmental Quality, 1997-2016*, 1997.

[33] Ben Boer, Rob Fowler, and Neil Gunningham, *Agenda 21: The Legal Implications*, 1992, at 4.

[34] Ibid.

[35] UNCED, Earth Summit: Agenda 21: The United Nations Programme of Action from Rio (1993), cited in Ben Boer, at 105-6.

[36] See Agenda 21, Chapter 8.

and industry, women, children and youth.[37] Agenda 21 also addresses the issues of climate change, ozone depletion, and transboundary pollution.[38]

One might argue that these last provisions are repetitive of the Framework Convention on Climate Change, Vienna Convention for the Protection of the Ozone Layer and its protocols, and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. However, as indicated earlier, there are difficulties in negotiating international treaties, which relate to the challenge of obtaining consensus, the difficulties of incorporating detailed provision and the time-consuming process of making all the parties concerned agree to even one single provision in the treaty.

Agenda 21, as a soft law, transcends the above difficulties. A good example is the Framework Convention on Climate Change, which focuses primarily on energy policy. Agenda 21 has much broader provisions than are included in the Convention, such as the development of efficient, less-polluting transport technologies, and land-use and resource policies that will reduce emissions of greenhouse gases.[39]

Increasingly, Agenda 21 has been recognised in many countries as a plan for sustainable development. As Ben Boer argues, for example, development plans in Australia, at both federal and state level, as well as in the Pacific Island region, have adopted Agenda 21 as a guide for environmental strategy-making.[40] Similarly, Singapore has incorporated many principles of Agenda 21 in its development and environment plans. These are set out in the Singapore Green Plan - Action Programmes, covering six principal areas: environmental education; environmental technology; resource conservation; clean technologies; nature conservation; and noise.[41] China has also showed its positive response to Agenda 21 by producing the white paper titled "China's Agenda 21".[42] The

[37] See Agenda 21, Chapters 24, 25, 27, and 30.
[38] See Agenda 21, Chapter 9.
[39] Ben Boer, Rob Fowler and Neil Gunningham, *Agenda 21: The Legal Implications*, at 17-8.
[40] Ben Boer, 'The Globalisation of Environmental Law: the Role of the United Nations', at 107.
[41] Foo Kim Boon, 'ASEAN's Environmental Future: The Singapore Perspective', a paper presented at the Seventh General Assembly and Conference Workshop, ASEAN Law Association, 1995.
[42] Chatchom Akapin, Coordination between Economic Development and Environmental Protection in China, A paper submitted in the course Comparative Law Seminar: Use of Legality to Transform Chinese Society, 1994, at 21.

paper established policies to comply with recommendations pertaining to sustainable development.[43]

Why has Agenda 21 gained tremendous recognition from the world despite its status as soft, rather than hard law? Many scholars suggest that, even as soft law, Agenda 21 generates a number of legal implications. These include an important policy statement which will be the foundation for future negotiations on environmental issues at both national and international levels. Also, Agenda 21 puts pressure on governments to adopt policies as well as to take actions consistent with the recommendations set out in the international instrument.[44]

In addition to the legal perspective, Agenda 21 represents a global consensus agreed upon at UNCED, thus generating a political commitment for its signatories to comply with it. As the former Australian environment minister, Roz Kelly, put it, "its recommendations (have) the force of a political commitment at the highest possible level".[45]

Agenda 21 and its Effect on Thailand

Given that Thailand ratified Agenda 21, the country is politically bound to comply with it regardless of its soft-law status. What actions has Thailand taken to conform to Agenda 21? So far, the country has integrated the concept of sustainable development, the ultimate goal of Agenda 21's action plan,[46] into its Eighth National Economic and Social Development Plan for 1997-2001[47]. Furthermore, the current Policy and Prospective Plan for Enhancement and Conservation of National Environmental Quality 1997-2016 has also aimed at achieving the goal of sustainable development[48].

For present purposes, it is important to emphasise those aspects of Agenda 21 which contain recommendations relating directly to air and water pollution. The most

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[43] William Alford and Yuanyuan Shen, 'Limits of Law in Addressing China's Environmental Dilemma', *Stanford Environmental Law Journal*, 1997, at 135.
[44] Ben Boer, Rob Fowler and Neil Gunningham, *Agenda 21: The Legal Implications*, at 17-8.
[45] Ibid, 5-6
[46] See Note 39.
[47] Chavalit Yongchaiyudh, 'Foreword', in *Thailand's Action for Sustainable Development*.
[48] Such a policy is similar to that of Singapore's Green Plan-Actions Programme mentioned earlier: it contains policy on natural resources; pollution prevention and eradication; natural and cultural environments; community environment; environmental education and promotion; and environmental technology. See note 30 for more details.

important of these are in Chapters 9, 18, and 21. While Chapter 9 includes the issue of transboundary pollution, Chapters 18 and 21 address the issue of freshwater resources, including water pollution. . These last two provisions suggest that all nations should establish appropriate institutional structures, legal instruments, and efficient water-use programs by the year 2000[49].

Thailand has accordingly responded to such recommendations. For example, the *1992 Enhancement Act* encompasses a number of provisions dealing with air and water pollution issues.[50] In particular, the provisions on environmental information availability, and recognition and promotion of the roles of NGOs incorporated in the reformed environmental regulation, encapsulate central tenets of Agenda 21.[51]

Moreover, in the context of promoting the role of business and industry in protecting the environment (also included in Agenda 21) the Thailand Business Council for Sustainable Development (TBCSD) was also established, consisting of many business entrepreneurs. In June 1994, an implementation plan was introduced for members to establish corporate environmental activities, implement internal audits and publish environmental reports.[52]

B. International agreements that have 'indirect' effects on Thailand's air and water pollution law: Ozone Depletion, Hazardous Wastes and Climate Change

Thailand has also taken seriously its obligations under a number of international agreements relating to the environment. None of these, however, relates to air and water

[49] Ben Boer, Rob Fowler, and Neil Gunningham, at 17-9, 27-8, 32.
[50] These include requirements that the owner or possessor of the air pollution's point source must instal or provide an on-site facility for the control, disposal, reduction of air pollution; that the owner or possessor of the water pollution's point source must construct, instal, or provide an on-site facility for the wastewater treatment or waste disposal. See the 1992 *Enhancement Act*, Sections 64-77 for greater detail.
[51] These include the rights granted to an individual to have access to information related to promotion and maintenance of environmental quality from the government agencies concerned; potential entitlement of assistance from the government to the registered NGOs in many ways including public relations and dissemination of information to create a correct awareness of environmental protection and conservation of natural resources. For more detail, see the 1992 *Enhancement Act*, Sections 6-8.
[52] Anand Panyarachun, 'Merging Business and the Environment: Three Steps to Leadership', *TEI Quarterly Environmental Journal*, January-March 1995, at 4-5.

pollution directly.[53] However, brief reference is made here to the way Thailand has responded in three related areas in which it has signed international agreements on ozone, climate change and hazardous waste, to provide broader insights as to how Thailand is influenced by its international obligations and responds to them.

1. Vienna Convention and Montreal Protocol

From 1971 to 1987, many scientists found that ozone in the world's atmosphere was decreasing, resulting in degradation of the environment and natural resources. Their research also found that the ozone depletion was attributed to some chemicals used in the manufacturing process of industry; these included chlorofluorocarbons (CFCs) and Halon. UNEP subsequently held a convention with regard to this issue at Vienna in 1985.[54]

The outcome was the Vienna Convention, to which Thailand was a signatory[55]. The Convention was subsequently developed by a number of protocols. Among these, the instrument which most affects Thailand is the Montreal Protocol 1987.[56] The substantial provisions of the protocol included recognition that CFCs, along with some other chemicals including Halon, could cause depletion of the ozone layer; and establishment of a plan to reduce and abandon such chemicals. Thailand signed the protocol in September 1988 and ratified it in July 1989.[57]

As a signatory to the Vienna convention and the Montreal Protocol, Thailand is committed to reduce and then abandon the CFCs in production, use and import. Although Thailand, along with other developing countries whose annual calculated level of consumption of the controlled substances did not exceed 0.3 kilograms per capita, had a grace period of ten years to comply with the treaty[58], it was evident that the country vigorously complied with the obligation set forth in the protocol, and became

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[53] In a broader sense, ozone depletion and climate change have a relationship with air pollution, and hazardous waste has a relationship with water pollution. All three of these issues however, are major research topics in their own right and, as indicated in the introduction, are beyond the direct scope of this thesis.

[54] Amornpot Kullawijit, 'Environmental Problem: Depletion of the Ozone Layer',at 150-1.

[55] Ibid. See also Richard Elliot Benedick, *Ozone Diplomacy*, 1991, at 44-5.

[56] Thailand ratified the Montreal Protocol in the Second Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer held in London during 27-29 June 1990. For more details, see Ibid, at 153-94.

[57] Richard Benedick, *Ozone Diplomacy*, at 269.

[58] See Montreal Protocol on Substances that Deplete the Ozone Layer 1987, Article 5.

the first country in the Asia-Pacific region which abandoned the importation of refrigerators using CFCs.[59]

2. *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*

Increasingly, theee have been major international developments to control the import and export of hazardous wastes. Many developing countries have long received hazardous wastes sent from developed countries. The motives for shipping such wastes from developed to developing countries include the re-use of the wastes as other kinds of material; the lower costs of disposal in developing countries; and illegal shipping to victim countries.[60] Many developing countries in Latin America and Africa, as well as environmental NGOs such as Greenpeace, have opposed such waste shipping.[61] Yet such activities continued on a large scale. This caused various forms of protest and direct action, such as the Guinea government's forcing a ship loaded with waste disposal ash from Philadelphia, USA, to return to the country of origin.[62]

As this problem increased, UNEP managed to persuade many developed and developing countries to reach an international agreement on this issue. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (hereafter Basel Convention) was signed in 1989 by many countries at Basel, Switzerland. Thailand signed the treaty in March 1992[63], and ratified it in late 1997.[64]

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[59] Interview with Dr Suvit Yodmanee, the Director and Representative of UNEP in Asia and Pacific region on 9 December, 1996.

[60] Thailand had been a victim of Singapore in this regard. In April 1989, the toxic acid generated from toxic wastes leaked from their containers kept at port warehouses. The toxic wastes had been imported from Singapore by Thai importers immediately before their expiry dates. More importantly, it was found from the investigation conducted by the Thai authority that the local importers never claimed the goods. It was evident that there was a conspiracy between the Singapore exporters and Thai local importers. For more detail, see Kobchai Charoenvimolkul, 'Problematic Impasse for Thailand Relating to Marine Pollution', *Thammasat Law Journal*, 1991, at 221.

[61] Office of Environmental Policy and Planning, *A Report on Environmental Quality Situation 1995-1996*, at 155.

[62] Narumol Kanjanapongse, 'Basel Convention:International Measure on the Control of Transboundary Movement of Hazardous Waste', *Thammasat Law Journal*, 1991, at 209-10.

[63] Office of Environmental Policy and Planning, at 155.

[64] Interview with Ms Wanna Tanunchaiwatana on 12 January 1998.

The Basel Convention has had a number of effects on Thailand. First, the Thai government has an obligation to enact necessary regulations and measures to apply to entrepreneurs whose businesses are related to chemicals and hazardous wastes. These measures include monitoring the entrepreneur's behaviour, and the imposition of punishment where necessary to ensure compliance.[65] In response, Thailand enacted the *Hazardous Substances Act* in 1992, which was the same year that Thailand signed the Basel Convention. The treaty at the same time created awareness among entrepreneurs whose businesses are involved with chemicals as well as hazardous wastes that the safety agenda must be incorporated in their operation as a top priority despite an increase in expense.

Enforcement against businesses which conduct their operations in ways inconsistent with the Convention obligations, is crucial to the Convention's success. While the empirical picture is unclear, there is at least some evidence of appropriate enforcement action on the part of the Thai government. In the Klity Mine water pollution case discussed in Chapter 3, the mine was shut down as a result of discharging lead-contaminated water into the public stream.[66]

3. The United Nations Framework on Climate Change

The third international agreement with crucial environmental implications (relating tangentially to air pollution, conventionally defined), is the Framework Convention on Climate Change. Scientific research has found that the incessant increase of greenhouse gases in the atmosphere is responsible for global warming. To tackle this problem, UNEP in cooperation with the World Meteorological Organization (WMO) established the Intergovernmental Panel on Climate Change (IPCC) in 1988. After extensive research, IPCC concluded that the increase of greenhouse gases was precipitated by human activities, including emissions of carbon dioxide and deforestation.[67]

In May 1992, many countries signed the United Nations Framework Convention on Climate Change; Thailand was one of them. Just one month later, 155 countries ratified

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[65] Office of Environmental Policy and Planning, at 155.

[66] See Chapter 3 for more details.

[67] Thailand Environment Institute, *Executive Summary, The Project for national study and inventory on the quantity of greenhouse gas emissions which are not controlled under Montreal Protocol*, submitted to the Office of Environmental Policy and Planning, June 1997, at 1-5.

the Framework Convention at UNCED held in Rio de Janairo. Thailand ratified the treaty in December 1994.[68]

The ultimate objective of the treaty was that the parties should limit their greenhouse gas emissions to a level where they would not cause harmful effects to humans.[69] Importantly, such a limit must be completed within the time frame stipulated under the treaty. The parties also have to make available the national inventory of *anthropogenic* emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, and communicate with the Conference of the Parties through the Secretariat.[70]

However, it must be remembered that Thailand, along with other developing countries, has no commitment under the Framework Convention to reduce greenhouse gases, despite being a member of the Climate Change Convention. So far, no developing countries have been set any target for greenhouse gas reduction. They have justified their denial by pointing out that developed countries are the main polluters who have to take the lead in reducing the greenhouse gas, because they have been polluting the environment since the era of the Industrial Revolution two hundred years ago.

The Framework Convention on Climate Change has been strengthened by several protocols held by the Conference of the Parties (COP) of which Thailand is a member. The protocol which affects Thailand and other developing country members is the Berlin Mandate, which was adopted by the Conference of the Parties to the Convention. It provided that the following protocols must not introduce new commitments to parties which are developing countries.[71] A question arises: why did Thailand enter into the Framework Convention while the country had no commitment to reduce greenhouse gases? During my fieldwork study, Ms Wanna Tanunchaiwatana, Chief of International Cooperation, Office of Environmental Policy and Planning, an officer-in-charge who was involved in the negotiations on several environmental treaties, said:

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[68] Ibid, at 5.

[69] See the United Nations Framework Convention on Climate Change, Article 2

[70] Ibid, Article 12, 1(a).

[71] This was revealed by Dr Supawit Piempongsan, the Inspector-General, Ministry of Science, Technology and Environment, at the Conference 'The United Nations Framework Convention on Climate Change (UNFCCC): The Solution from COP-3 (Kyoto Protocol)', organised by the Office of Environmental Policy and Planning, Ministry of Science, Technology and Environment, on 2 February 1998.

> Although Thailand is not a main polluter when compared to many other countries, we have entered into the Framework Convention on Climate Change because we realise that this is a global issue in which global participation is required...The other reason why Thailand has become a party to the treaty is because being a party enables us to become a member in the 'Conference of the Parties' (COP). As a consequence, we can protect our benefits through not only treaty but monitoring the Framework Convention as one of the COP members as well.[72]

Despite having no responsibility to reduce greenhouse gases as discussed above, Thailand is nevertheless committed to producing an inventory of greenhouse gases not controlled by the Montreal Protocol, according to the Framework Convention on Climate Change.[73] How does this commitment contribute to an improvement of Thai environmental regulation? Obviously, producing the national inventory of greenhouse gases to the Conference of the Parties is a way Thailand has been mandated to reveal its level of greenhouse gas emissions internationally. In doing so, Thailand has to ensure that it enforces relevant laws so properly that there are continual improvements with respect to the amount of greenhouse gas emissions.

The national inventory itself can be indispensable in enabling Thailand to keep track of the details concerning the greenhouse gases it emits, such as the sources and amounts of emissions. Such information will help Thailand enforce environmental regulation more conveniently and effectively. Simultaneously the Thai government has been encouraging the Thai to change their lifestyle towards better environmental practices. Examples include several projects such as energy savings; and a switch in the use of fuel to natural gases.[74]

The above discussion shows that, as a party to the international agreements on ozone depletion, hazardous wastes, and climate change, Thailand has so far responded to the agreements positively at the domestic level. Examples include the fact that Thailand has enacted a regulation mandating the newly produced appliances to be free from CFCs since 1998, while all the existing products using CFCs will be completely superseded by non-CFC products by the year 2010 as a response to the agreement regarding ozone depletion.

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[72] The interview was conducted on 12 January 1998.
[73] See United Nations Framework Convention on Climate Change 1992, Article 4. See also, Thailand Environment Institute, at 3.
[74] Ibid, at 66.

We also found that Thailand has been responsive to the Basel Convention. As parties to the agreement were required to enact the necessary regulations and measures to implement it at the domestic level, Thailand promptly enacted the regulations which are responsive and applicable to such requirements in 1992.[75] In addition to regulatory enactment, Thailand has also responded to the international agreement by means of enforcing such regulations domestically, as in the case of Klity Mine.

Thailand's obligation to produce an inventory of greenhouse gases not controlled by the Montreal Protocol is a subtle way in which Thailand has been bound under the Framework Convention on Climate Change to ensure both that Thailand genuinely fulfils its obligations, and that its level of greenhouse gas emissions improves constantly. The fact that Thailand has undertaken several projects such as a change in the use of fuel to natural gases indicates its attempt to fulfil its task of domestic regulation.

III. The Role of International Institutions

As indicated at the outset of this chapter, international soft law and international treaties are not the only international initiatives capable of influencing domestic environmental policy and regulation within Thailand. On the contrary, in the area of air and water pollution in particular, other approaches can have a substantial effect on Thai domestic regulation, or directly influence the environmental behaviour of Thai business. Some of these approaches have the potential to achieve far more than the existing treaties and soft law regimes with regard to issues of air and water pollution.

Although some of such measures were not initially designed for the purpose of environmental stewardship, their operation can indirectly make environmental regulation work. Such measures can be found in the provisions of some international agreements involving international institutions. These include the agreement on financial assistance undertaken between international financial institutions such as the World Bank and the International Monetary Fund (IMF), and the assistance-receiving

[75] However, Thailand ratified the Basel Convention in 1997.

countries[76]; and the international trade agreements.

A. Agreement between the World Bank and assistance-receiving countries

Currently, the World Bank (hereafter the Bank) is influential in improving the environmental situation of borrowing countries.[77] Ibrahim Shihata argues that the Bank in fact took into account "some" aspects of environmental concerns in the projects it financed as long ago as the 1950s.[78] However, the Bank's interest in environmental issues only gradually evolved and was first formally and clearly stated in a speech by Mr Robert McNamara, the Bank's then president, when addressing the United Nations Economics and Social Council in 1970. In that speech he said:

> The problem facing development finance institutions, including the World Bank, is whether and how we can help the developing countries to avoid or mitigate some of the damage economic development can do to the environment, without at the same time slowing down the pace of economic progress. It is clear that the costs resulting from adverse environmental change can be tremendous. It is equally clear that, in many cases, a small investment in prevention would be worth many times over what would have to be expended later to repair the damage. In the Bank, therefore, we recently have established a small unit to foresee, to the extent possible, the environmental consequences of development projects proposed to us for financing. Even more important, we want to work toward concepts that will enable us and other development financing agencies to consider the environmental factors of development projects in some kind of cost-benefit framework.[79]

Notwithstanding this, and indeed later declarations of environmental commitment, many environmental groups and others have been highly critical of the bank's actual environmental practices, which in their view, often involve support for large economic

[76] It is widely believed that financial institutions have an influential role to play in imposing environment-related instruments such as 'green loan' conditions, and environment-related policies as part of financial agreements. For more detail, see Charles Di Leva, 'International Environmental Law and Development', *The Georgetown International Environmental Law Review*, Vol. 10:501, at 501.

[77] Carter Brandon and Ramesh Ramankutty, *Toward an Environmental Strategy for Asia*, 1993, at 159-61.

[78] Ibrahim Shihata, *The World Bank in a Changing World*, 1993, at 137. Mr Shihata was Vice President and General Counsel of the World Bank at the time of his writing.

[79] Ibid.

developments with scant regard to the adverse environmental consequences. According to its critics, the Bank usually prioritises economic growth and therefore ignores the environmental issues in a number of development projects, especially those in developing countries. As a result, most of the projects supported by the Bank have caused adverse effects to the borrowing countries in one way or another, including the environment.[80]

Thailand has received financial assistance from the Bank since 1964 for its development projects. As in many other Bank projects in developing countries, the most recent project, Pak Moon Dam (the fifth major dam project in Thailand), during three years has been the subject of nationwide protests from NGOs. They assert that the dam construction has brought about deforestation and local people's displacement.[81] Furthermore, Professor Saneh Chamarik, chairman of the Bangkok People's Forum, a leading environmental NGO, bluntly criticised the World Bank and IMF on the basis that "these agencies must stop thinking only about economic growth numbers because these numbers have destroyed people's lives, as well as the environment".[82]

The question that arises here is: if the World Bank has integrated environmental issues in its financing processes as it claims, then why has a Bank-supported project like Pak Moon Dam caused such adverse effects on the environment?

The answer is instructive, and critically important to future environmental strategy and policy-making. During my fieldwork interview, Dr Manida Unkulvasapaul, Environmental Specialist and Programming Officer of the World Bank, Thailand Office said:

> The Bank's main objectives are to help the poor in developing countries. However, a borrower of each project must provide a substantial proof that such project will not cause adverse effects to the environment.

[80] Bruce Rich, *Mortgaging the Earth: The World Bank, Environmental Impoverishment, and the Crisis of Development*, 1994, at 72.
[81] Ibid, at 9.
[82] Ibid, at 20.

> Since 1990, our consideration on any loan application has been based on sustainable development. We always look at three main factors of the project, namely: engineering; economics; and environment (3 Es). These three Es must be well integrated and at the same time be a good balance between development and environment. We can be that selective because we do not focus on lending money in order to earn interest like commercial banks....If it is found later that the borrower does not comply with the conditions agreed upon, we will suspend the loan...At present, the Thai government does not want a loan from us. That is why we cannot have it follow our advice. What Thailand is receiving from us now is only technical assistance, not financial.[83]

Why did the Thai government not want to borrow money from the World Bank for the country's development projects? Although a formal answer is not available, it is apparent that the Thai government did not borrow from the Bank for fear that it would have to "listen" to the Bank by considering environmental issues in its development projects. This analysis supports the findings in Chapter 4 that the Thai government always gives preference to economic growth, rather than environmental protection.

This prioritising of economy over environment becomes even more pronounced when the economy of a developing country meets a crisis. The economy of many Asian countries' collapsed in 1997. In Thailand, the crisis was attributed to many causes. These include a large current account deficit, especially in the form of a great deal of foreign debt incurred by private sectors because of interest rates lower than those charged by Thai financial institutions; and approvals of loans by many Thai financial institutions without sufficient securities being provided by the borrowers. In the latter case, a great deal of money lent to the domestic borrowers, most of whom were property developers, derived from the money that the Thai financial firms had borrowed from overseas because of relatively low interest.[84] In addition, the *Economist* economic journal argues that the worst factor responsible for the crisis is the fact that the value of the Thai baht was set daily by the central bank. It was pegged to the dollar at the approximate rate of 25 baht to 1 US dollar before the devaluation of the Thai baht. The devaluation brought tragic consequences because the country could not find enough

[83] The interview took place on 6 January 1997.
[84] Narong Petchprasert, 'Editorial notes', *Journal of Political Economy*, 1997, at 6-9.

weak Thai baht to buy the US dollars to pay the foreign debts. At one stage, the exchange rate was approximately 50 baht to 1 US dollar, in January 1998.[85]

The World Bank and its effect on Thailand's air and water pollution law

For present purposes of environmental policy and regulation (broadly defined), the crucial question becomes: how can an economic crisis be turned into an opportunity for environmental protection and reform? Notwithstanding the financial crisis identified above, Thailand, a developing country, still has many projects to undertake for its national development. Given such a crisis, it is clear that foreign loans are inevitable. As the World Bank now makes its loans conditional upon meeting specified environmental conditions, there is hope that the Bank's loan will provide a good opportunity to achieve the goal of sustainable development, as Thai politicians will have to 'listen' to the Bank regarding integration of environmental issues in the country's development projects financed by the Bank. While the Bank has put the green policy into its loan conditions, the Thai government must ensure that environmental issues will be integrated into the projects for which it borrows money from the Bank, if it needs the development projects to continue in the future.

But to what extent can the Bank be relied upon as a vehicle for environmental protection, given its earlier disappointing performance with regard to the environment? The encouraging answer is that in the 1990s there is some evidence of a genuine "greening" of World Bank policy, and of the environmental agenda being genuinely integrated in the development projects financed by the Bank. Increasingly, the Bank pays special attention to projects related to environmental issues such as in industry, agriculture, transport, and energy.[86] It takes into consideration the measures needed to avoid or at least mitigate environmental risks as much as possible and accordingly imposes these as obligations in the loan agreements with which the borrower must comply.[87]

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[85] 'The baht spills over', *The Economist*, 24-30 May 1997, at 81-2.

[86] The World Bangk, *Greening Industry: New Roles for Communities, Markets, and Government*, 2000, at 148-50.

[87] Bruce Rich, at 148. An early (and possibly at that time atypical) example is the Botswana-Shashe project undertaken in 1971. Under the loan agreement, the borrower, the government of Botswana, was required to take all action, including the enactment of pollution control legislation, to ensure that the mining project operations were not harmful to public health, as well as the environment.

However, while the use of the Bank's green loan has considerable potential, particularly in economic circumstances in which Thailand is economically dependent upon such loans, it must be remembered that this is merely *one* of various alternative measures to improve the effectiveness of the Thai environmental regulation. Other measures discussed elsewhere in this thesis, and particularly in the remainder of this chapter, still have roles to play simultaneously.

B. Agreement between the IMF and assistance-receiving countries

Unlike the World Bank, IMF's main objective is to render assistance to countries suffering from balance-of-payment problems, so they can stabilise economic crises. It is not limited to financial assistance; it also provides consultation, technical assistance, and the development of standards for data dissemination. The consultation tasks have created responsibility for IMF to oversee member-country policies.[88]

With respect to financial assistance, IMF's policy is to provide a long-term solution rather than just to give money to countries facing financial crisis. Therefore, the IMF usually sets out many conditions to ensure that the economy of the borrowing countries will improve in a sustainable way over time. The conditions include the economic aspect of governance; financial institutional reform; reform of market mechanisms; banking laws; and regulation improvements.[89]

Good Governance: a vehicle for transparency

Currently, the IMF is placing particular emphasis on the need for good governance. This can be seen in particular in the Declaration of Partnership for Sustainable Growth adopted by the IMF's interim committee, which is concerned with "promoting good governance in all its aspects, including ensuring the rule of law, improving the efficiency and accountability of the public sector, and tackling corruption".[90]

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[88] George Kopits and Jon Craig, *Transparency in Government Operations*, 1998, at 11.
[89] International Monetary Fund, News Brief No. 97/15, August 4, 1997.
[90] Ibid.

What does 'good governance' mean? Indeed, its precise meaning has not been defined by the IMF or any other major institution in a formal way, though the World Bank defines the word 'governance' as the manner in which power is exercised in the management of a country's social and economic resources for development.[91] Nevertheless, much guidance on the appropriate interpretation of the term can be gained from a 1995 paper approved by the Board of Directors of the Asian Development Bank (ADB): *Governance: Sound Development Management.* The paper spells out the commitment of ADB to assist developing countries in enhancing their capabilities in development. The paper described good governance as consisting of four basic elements: accountability, transparency, predictability, and public participation.[92]

It is apparent that the IMF has adopted the good governance issue from ADB as one of its guidelines to improve the situation of member countries seeking financial assistance.[93] Subsequently, the member countries, especially those in the developing world like Thailand which borrow money from the IMF, are usually required to implement the good governance issue. The importance of this strategy is now widely recognised. Kofi Annan, the United Nations secretary-general, recently stated:

> There are global forces at play that we cannot control, so we must seek to conceive global mechanisms and structures to manage their effects...I believe that the challenge of good governance is now a global challenge.[94]

As we will see, the IMF's underlying policies, including the insistence on good governance, have a particular potential to improve the environmental situation of countries such as Thailand, where corruption is pervasive.

The IMF's influence in Thailand, or indeed other developing countries, is likely to be greatest in times of economic crisis, such as Thailand has recently been experiencing.

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[91] Shoji Nishimoto, 'The Bank's Governance Policy', Opening Remarks, *A record of the proceedings of the seminar on Governance: Promoting Sound Development Management* in Fukuoka, Japan on 10 May 1997, at 9. See also Anand Panyarachun, 'Good Governance and the Future of Thailand', a keynote speech given on 25 March 1998, at the Faculty of Political Science, Chulalongkorn University, published in *Matichon*, 26 March 1998; and Ibrahim Shihata, 'Democracy and Development', *International Comparative Law Quarterly*, June 1997, at 640.

[92] Shoji Nishimoto, 'The Bank's Governance Policy', at 9.

[93] While ADB had approved a paper, 'Governance: Sound Development Management,' introducing good governance and its four basic elements in August 1995, IMF adopted the issue of good governance in the Declaration of Partnership for Sustainable Growth by its Interim Committe on 29 September 1996. For more detail, see Shoji Nishimoto, at 9 and International Monetary Fund, at 1.

[94] Suchada Kulawat, 'Securing global remedies to a worldwide curse', *Bangkok Post*, 18 December 1997.

As a result of the crisis, the country has received assistance from several sources, including the IMF, to improve its ailing situation.[95] Significantly, the loans themselves come with a number of conditions with which Thailand must comply; these include the good governance requirement.

How does good governance help achieve the goal of regulatory success in Thailand? Recently, Mr Anand Panyarachun, former prime minister, and former chairperson of the Constitution Drafting Assembly (CDA) which wrote the current constitution, advocated the implementation of good governance as necessary for Thai society because its basic elements, accountability, transparency, predictability, and public participation, meet the needs of the country, particularly given its history of corruption and related problems, described earlier.[96]

Mr Anand also emphasised that the concept of public participation, one of good governance's elements, is in harmony with the newly-enacted Thai Constitution which proposes public participation as its main objective.[97] The new Constitution also recognises that unsophisticated political systems, poor government administration, and most of all, corruption have increased constantly, and accordingly encompasses the issue of transparency. Examples include a provision allowing any individual to have access to information or public news which is in the possession of government agencies, state enterprises or local government agencies.[98]

As regards the environmental issue in particular, the constitution also allows any person to obtain information, explanation and reasons from the government agencies, state enterprises, or local government agencies before permission is given for any project or activity which may harm environmental quality, health, or any important interest of that person, or local community.[99] This issue is related to good governance which, as we have seen, also has the concept of transparency as one of its elements.

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[95] Ibid.

[96] Mr Anand also advocates that good governance should be implemented in a broader way. He suggests three more elements to added to the four original elements: the availability of a legal system which provides justice to both society and individuals; law implementors who are really just; and an independent and responsible mass media. See Anand Panyarachun, 'Good Governance and the Future of Thailand', a Keynote Speech, *the Nations*, 26 March 1998 for more details.

[97] Ibid.

[98] See Thai Constitution 1997, Section 58.

[99] Ibid, Section 59.

To demonstrate how the implementation of good governance fits into Thailand's situation for the purpose of regulatory success (including, but not limited to, the area of environment), take the corruption scandal in the Ministry of Public Health. Recently, a number of doctors in rural areas revealed that many hospitals in the provinces had been forced to buy medical supplies at highly inflated prices.[100] The 'whistleblowers' also alleged that Mr Rakkiat Sukthana, the then Health Minister, cancelled the standard prices of the medical supplies in order to force state hospitals to buy drugs at the higher prices. As a result of this irregularity, hundreds of doctors, as well as the public, demanded the resignation of Mr Rakkiat, his two deputies, and some senior officials involved in the scandal.[101] After the demand had been ignored, academics and NGOs both in Bangkok and many provinces jointly sought signatures of 50,000 eligible voters to meet the requirements stipulated in the constitution which could result in dismissal of a politician. The unprecedented public pressure resulted in the resignation of Mr Rakkiat and his two deputies although NGOs had collected only about 30,000 signatures at the time.[102]

The above case may prompt the question: why is good governance necessary for Thailand if its constitution already brings about regulatory success? Here it is necessary to note that the resignation of the politicians did not stem from the constitution; rather, it was the result of public pressure. Although the constitution allows for 50,000 voters to petition to oust a politician, the constitution itself cannot be effective for it serves as a broad legal framework. In fact, eleven implementing regulations, including the one dealing with the corruption problem, are required to make the constitution work. It is however disappointing that although the implementing regulations regarding corruption had to be passed within two years from 11 October 1997, which was the day the current constitution took effect[103], little has been done to enact such a regulation at the time of writing.[104]

The remarkable success in ousting the allegedly corrupt politicians in the absence of applicable law suggests that public participation, one of the good governance's elements, is influential in translating laws into action. Nevertheless, another question

[100] 'Health/People's Pressure Mounts for Ouster of Minister', *Bangkok Post*, 12 September 1998.
[101] 'Corruption, Pressure Builds on Rakkiat', *Bangkok Post*, 15 September 1998.
[102] Supawadee Susanpoolthong, 'NGOs hunt signature to oust MP', *Bangkok Post*, 11 October 1998.
[103] See the Thai Constitution 1997, Section 329.
[104] 'Anand bares distortion in organic laws', *The Nation*, 12 October 1998 See also Supawadee Susanpoolthong, 'NGOs call for passage of new laws', *Bangkok Post*, 12 October 1998.

arises: is good governance still necessary after the implementing laws are passed? Significantly, it is a former prime minister, Mr Anand Panyarachun, who strongly supports the concept of good governance although he was directly involved in writing the current constitution as the chairperson of the Constitution Drafting Assembly (CDA). This is clear evidence that good governance is indispensable to Thailand despite the existence of the constitution, as far as regulatory success is concerned. Accordingly, a requirement for good governance which has been imported and mandated by an international obligation, and in respect of loans upon which Thailand is heavily reliant, can be expected to be particularly influential on future Thai policy.

Good Governance and its effect on Thai air and water pollution laws

The role of the IMF in environmental protection is potentially two-side. The danger is that the recent economic crisis will lead to environmental concerns being treated as less important. In such a situation, where desperation is increasing, economic survival may well be seen as more important than environmental protection. Accordingly, the signals which IMF sends to developing countries about the significance with which it treats issues such as good government and environment, as distinct from short term economic improvement at any cost, will be crucially important in determining whether it becomes an instrument for environmental protection or environmental destruction.

So far, the signals have been far stronger in relation to economic policy than in relation to environment. As part of IMF austerity measures, and as a condition of its loan, Thailand has been required to follow IMF's instructions regarding financial policy as a part of its overall program of structural adjustment.[105] These included cutting government spending considerably, as well as closure of 56 financial institutions which had lent money to their customers without sufficient collateral and then became overwhelmed with bad debts. Millions of people have lost their jobs as a result of the IMF's austerity program. This has inevitably caused enormous pressures on many Thais.

What kind of environmental degradation is a possible result of economic pressures? In the past, Thailand established itself at the forefront of Asian economic development at the expense of natural resources and the environment, as we found in early chapters.

[105] Ki Woo, 'View Points: System Meltdown?', *The Nation*, 17 August 1997.

With this precedent, it is likely that the environment may again be sacrificed for the benefits of economic growth if the IMF's austerity program is to be strictly complied with. In this case, IMF may unwittingly become a cause of environmental degradation if all regulations and measures designed to promote sustainable development are not properly implemented.

On the other hand, the focus of IMF on good governance may make a very positive contribution to environmental protection. Good governance is essential to environmental regulation. As we found earlier, lack of regulation was not the reason for the problem of environmental regulatory failure in Thailand. Rather, the problem occurs from a breakdown in implementation and enforcement for a number of reasons such as corruption and lack of political will. It is at the level of implementation and enforcement that good governance can make the greatest contribution to the improvement of environmental regulation in Thailand.

In the case of the Mae Moh scrubber purchase discussed in Chapter 5, we found that environmental regulation had been violated as a result of inefficient environmental protection equipment installed at the Electricity Generation Authority of Thailand (EGAT)'s plants. We also found that Mae Moh residents alleged that irregularities were involved in the purchase of such equipment, since EGAT bought used equipment from China.[106]

From this, and a number of other examples of implementation and enforcement failure cited in earlier chapters, it is clear that if the concept of good governance is incorporated at every stage of environmental issues, including purchase of any equipment concerning environmental protection by the agencies concerned, and monitoring and enforcement by regulators, then the chances of environmental regulatory failure will be much reduced.

IMF has the potential to bring about improvements in environmental policy and the implementation of regulations, even though it does not render loans for development projects as does the World Bank, because IMF always attaches conditions to financial assistance; borrowing countries must strictly comply with these conditions in the process of improving their financial situation. The conditions with respect to good

[106] 'EGAT denies faulty components are used items from China', *Bangkok Post*, 15 October 1998.

governance in particular, could if seriously applied, considerably mitigate some of Thailand's worst political problems. This in turn would facilitate far more successful environmental initiatives than in the past.

C. International Trade Agreements

Free trade between nations is the fundamental principle underpinning a number of crucially important international trade agreements. Both the World Trade Organization (WTO) and the General Agreement on Trade and Tariffs (GATT) were established in furtherance of this principle. GATT was set up to guarantee that trade between countries flows without barriers.[107] Under the GATT, the action required is international cooperation in the pursuit of trade liberalisation.[108] The WTO is responsible for ensuring that a commodity from one country can be exported and sold on the domestic market of another country without facing unfair restriction, thereby ensuring that consumers can select the products at their preference, regardless of the products' country of origin. Many countries also have bilateral or multilateral trade pacts at the regional level. These include the North American Free Trade Agreements (NAFTA), the Caribbean Common Market (CARICOM) and the Mercado Commun del Sur (MERCOSUR).[109]

Importantly, the principle of fair treatment which underlies the free trade regime includes measures concerning the way the raw material of the products was acquired, and how the products were manufactured, as well as effects stemming from the consumption of products. If any measure considered an impediment to free and fair trade has been applied to any product, it can cause a ban on the product from the importing country as a sanction. Trade sanctions can be applied not only to maintain the free trade flow, but also to achieve other goals, which include protection of the environment and the fight against corruption.

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[107] David Parks, 'GATT and the Environment: Reconciling Liberal Trade Policies with Environmental Preservation', *UCLA Journal of Environmental Law*, 1996/97, at 153-4.

[108] Daniel C. Esty and Damien Geradin, 'Market Access, Competitiveness, and Harmonization: Environmental Protection in Regional Trade Agreements', *Harvard Environmental Law Review*, at 265-6.

[109] Ibid, at 266.

As indicated earlier, man-made activities can cause externalities, with the result that the full costs of production of a good or service are not reflected in its market price.[110] As regards international trade, an externalities-related problem is that products manufactured under lax environmental regulation in one country (as a result of which the environmental damage caused in their production is not reflected in the price) are sold in another country where regulation is more stringent. Products can usually be manufactured more cheaply where there are lax environmental controls, giving these products an unfair competitive advantage over products made in countries where environmental regulation is more stringent. In other words, countries tend to gain a comparative advantage under a free trade regime if their domestic environmental regulation is lax.[111]

This is unfair and likely to reward environmentally damaging products, and has caused serious concern, leading to the inclusion of provisions for environmental protection in a number of international trade agreements such as WTO; and the North American Free Trade Agreement (NAFTA). Under WTO, the environmental provision allows member countries to adopt any measures which they think necessary to protect human, animal or plant life or health or that related to the conservation of exhaustible natural resources.[112] However, because there was a concern that such an environmental-related statement might be manipulated so as to serve as a disguised restriction of the free trade regime, WTO specified that the word "necessary" stated earlier must not be interpreted so as to facilitate arbitrary or unjustifiable discrimination between countries.[113]

Similarly in respect of NAFTA, a side agreement specifies that provisions related to environmental protection are always to be written to ensure that a party does not gain advantage over other parties by less stringent environmental regulation.[114] Analytically, scholars point out that the side agreement was designed for Mexico to upgrade its environmental standards in exchange for convenient access to the U.S. and Canadian markets[115]. In other words, the U.S. and Canada would not sign the NAFTA without the

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[110] Kriangsak Kittichaisaree, 'Using Trade Sactions and Subsidies to Achieve Environmental Objectives in the Pacific Rim', *Colorado Journal of International Environmental Law and Policy*, 1993, at 298.

[111] David Parks, 'GATT and the Environment: Reconciling Liberal Trade Policies with Environmental Preservation', at 171.

[112] Ibid, at 156-7; see also GATT, article XX.

[113] GATT, article XX.

[114] Diane Pitts et al., 'Environmental Provision of NAFTA,' in Joseph J. Norton and Thomas L. Bloodworth, eds, *NAFTA and Beyond*, 1995, at 472-3.

[115] John Braithwaite and Peter Drahos, Global Business Regulation, forthcoming published, at 8.

side agreement for fear that Mexico would have been able to sell its products at lower prices than those in their domestic markets because of its lower environmental costs.

Thailand's experience in trade-related environmental cases

Turning to the environmental implications for Thailand of international trade agreements, the country has so far been involved with two incidents concerning environmental issues under WTO. In the first case, Thailand (itself a member of the WTO) banned the importation of US cigarettes in 1989, on the grounds that cigarettes caused harmful effects to human health. The U.S. contended that while Thailand banned the cigarettes from the US, it did not ban the sale of domestic cigarettes within the country. The GATT panel decided in favour of the US It justified its decision by arguing that Thailand did not perceive the health issue of cigarette smoking as important because otherwise the country would not have allowed domestic cigarettes to be sold in its market.[116] Apparently, Thailand was seen by the panel as attempting to use environmental protection under WTO as a disguised trade restriction.

In the second case, the U.S. government imposed a ban on more than fifty shrimp exporting countries, including Thailand. It claimed that shrimp farming techniques in the banned countries were a threat to the dwindling sea turtle population. Such techniques were illegal under the U.S. law, the Marine Mammal Protection Act (MMPA).[117] Thailand and three other Asian countries, Malaysia, India, and Pakistan, brought the case to WTO, claiming that the U.S. government had raised the environmental issue in banning their exported shrimps as a disguised trade barrier. WTO subsequently made its decision in favour of Thailand and the three other countries.[118] However, the case continued as the U.S. appealed to the WTO for its final and binding decision. Most recently, the WTO panel has rejected the U.S. appeal against its earlier ruling that the U.S. erred in banning export shrimps merely because the exporting countries did not meet its requirement to improve measures to protect the endangered sea-turtle.[119]

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[116] Chatchom Akapin, 'Thailand raised environmental issue to ban the U.S. cigarette import', *Journal of State Attorney*, 1994. See Kriangsak Kittichaisaree, at 304.

[117] 'Thailand to try to get US shrimp ban relaxed', *Bangkok Post*, 21 June 1996.

[118] 'Thailand has won on shrimp battle', *Bangkok Post*, 15 July 1998.

[119] Wasant Techawongtham, 'What's good enough for importers', Commentary, *Bangkok Post*, 16 October 1998.

What do we learn from these two cases? It would be unwise to regard the results of the cases as precedents for international trade. However, at the very least, the two cases show that environment is constantly and increasingly interrelated to international trade. Significantly, despite the defeat in the second case above, some U.S. environmental groups have threatened to push the American government to ban imports from countries where shrimp farming has destroyed mangrove forests. This threat shows that more innovative attempts will be made to use trade sanctions as a way to deal with environmental issues. If this attempt is successful, Thai shrimp exports will be banned because it has long been evident that shrimp farming has destroyed much of the Thai mangrove forests.[120] Given that many industrial businesses in Thailand are exported-oriented, the relentless attempt to raise environmental issues as a cause of trade sanctions should prompt Thai exporters (and government authorities) to make greater efforts to ensure that exported products are not harmful to the environment.

ASEAN and environmental protection

At the regional level, Thailand is a standing member of the Association of South East Asian Nations, widely known as ASEAN. The objectives of ASEAN are manifold. These include promotion of regional cooperation to accelerate economic growth, social progress and cultural development, peace and stability, and free trade.[121] In January 1992, the meeting of ASEAN heads of government decided to establish the ASEAN Free Trade Area (AFTA) within the next 15 years[122], that is, by the year 2007.

The specific issue of the environment was raised in the ASEAN Ministerial meeting on the Environment held in Singapore in February 1992.[123] The meeting adopted the Singapore Resolution on Environment and Development which spelled out many

[120] Ibid. See also, 'Environmental problem and shrimp farming', *Charoen Pokphan Newsletter*, January-June 1992. In fact, shrimp farmers have been trying to move their farm locations from mangrove areas to inland to avoid accusations that they have destroyed the mangroves. However, their attempts have been strongly opposed by the government, which asserts that inland shrimp farming will cause environmental degradation where the farms are located, as well as in their vicinity. See 'PM firm on shrimp farm ban' *The Nations*, 13 July 1998.

[121] ASEAN Secretariat, *ASEAN Strategic Plan of Action on the Environment*, 1994, at 17.

[122] Ibid, at 23.

[123] The organisational structure for ASEAN cooperation on the environment consists of the Heads of Government, the ASEAN Ministerial Meeting on the Environment (AMME), the ASEAN Senior Officials on the Environment (ASOEN), the six ASOEN Working Groups and the ASEAN Secretariat. The Heads of Government of member countries are the highest authority in the ASEAN structure. With regard to environmental issues, they provide policy and guidance for the plans of action to AMME and ASOEN. They meet formally every three years.

policies and strategies that each ASEAN member must pursue in order to improve regional cooperation for sustainable development. The policies the ASEAN common stand on the United Nations Conference on Environment and Development (UNCED)[124] and the Agenda 21 programme area related to ASEAN. The meeting also adopted directions for environmental protection in relation to AFTA.[125] It is evident that the meeting was not only aware of trade and environment issues, but also prepared to take action on them once AFTA came into effect.

How did ASEAN perceive the issue of environmental stewardship before the inauguration of AFTA? Would environmental protection be on ASEAN's agenda in the absence of AFTA? In fact, the environmental issue is not new for ASEAN. Cooperation on the environment among ASEAN members began two decades ago. The ASEAN Sub-Regional Environmental Programme 1 (ASEP) was drafted with support from the United Nations Environment Programme (UNEP) in 1977. To strengthen this task, the ASEAN Senior Officials on Environment (ASOEN) was established in 1989. The committee comprises high-ranking officials at the level of permanent secretary of each member country and acts as a working group to seek a common policy regarding environmental issues among ASEAN countries.

When it was realised that government officials alone had limitations in dealing with environmental issues, a regional committee at the ministerial level was established in 1990: the ASEAN Ministers Meeting on Environment (AMME). Objectives of AMME

AMME's task is to ensure that the decisions of the Heads of Government relating to environment are carried out; it meets regularly every three years. ASOEN's functions and responsibilities include recommending policy guidelines and providing impetus towards the implementation of the principles of sustainable development to ASEAN governments as well as relevant committees; and promoting ASEAN cooperation on regional environmental matters, focusing on ASEAN's common seas and resources, land resources and land-based pollution, tropical forest, air quality, urban and rural pollution. ASOEN meets once a year.

The six ASOEN Working Groups are divided into the following areas: seas and marine environment; environmental economics; nature conservation; environmental management; transboundary pollution; and environmental information, public awareness and education. They meet annually. The ASEAN Secretariat was established for greater efficiency in coordinating the implementation of policies, projects and activities of the various ASEAN bodies. Issues of the environment come under the purview of the Functional Cooperation Bureau, one of the four bureaux under the ASEAN Secretariat's structural organisation (Ibid, at 17-19).

[124] According to the ASEAN common stand on UNCED, member countries were called on for various actions, including adopting urgent measures to combat climate change; immediate implementation of the Montreal Protocol Interim Multilateral Fund, and protection of the ecosystems of oceans and seas from pollution (Ibid, at 24).

[125] Dato' Ajit Singh, Secretary General of ASEAN, Foreword, Ibid.

include efforts to enhance environmental management including formulation of an ASEAN strategy and action plan for sustainable development.[126]

Currently, the ASEAN Strategic Plan of Action on the Environment is a documented centrepiece of cooperation among ASEAN members with respect to environmental issues. The objectives of the plan of action include to respond to specific recommendations of Agenda 21 requiring priority action in ASEAN; to introduce policy measures and promote institutional development that encourages the integration of environmental factors in all developmental processes both at the national and regional levels; and to establish long-term goals on environmental quality and work towards harmonised environmental quality standards for the ASEAN region.[127]

Implementation of the action plan has begun and has progressed. AMME has so far set up a number of expert groups to jointly solve marine pollution, as well as air pollution stemming from bushfires in Indonesia.[128] As AMME is a committee at the ministerial level, I interviewed Mr Pornthep Teichapaiboon, Deputy Minister of Science, Technology and Environment, to obtain first-hand information with regard to cooperation under AMME. He emphasised the level of cooperation in information sharing, the importance of the internet centre at Kalimantan, Indonesia, and the degree of mutual cooperation and assistance, as exemplified by the response to the Indonesian bushfires in 1997.[129]

As the ASEAN Strategic Plan of Action on the Environment has created a series of obligations on signatories to the agreement, improvement is expected in the environmental situation at domestic level of all member countries, including Thailand. In Thailand in particular, regional cooperation under the action plan will help tackle some of the causes of environmental regulatory failure, including lack of political will. The obligations under this international agreement create pressure for Thailand not only

[126] Ibid. In fact, ASOEN and AMME are inseparable in dealing with environmental problems in the region. Although the ASEAN Strategic Plan of Action on the Environment was initiated by AMME, it was agreed to by ASOEN in its fifth meeting during 20-22 April 1994 and by AMME during 25-26 April 1994 with supports provided by UNEP and ESCAAT.

[127] ASEAN secretariat, at 2.

[128] Interview with Ms Wanna Tanumchaiwatana on 16 January 1998..

[129] The interview was conducted on 12 March 1998.

include environmental protection in its national policy, but also to implement such policy domestically, and in ways which relate directly to issues of corruption and political will.

Combating corruption in international trade: a promising strategy to address environmental problems in Thailand

As shown in Chapter 5, corruption has become a global problem. In international trade, transnational bribery gives the bribe-payer an unfair competitive advantage over others.[130] This is especially the case when exporting or contracting companies in developed countries are awarded major contracts in exchange for bribing the senior decision-makers.[131] For example, there are many allegations that American companies or their local representatives have been involved in bribery in foreign markets.[132] Undoubtedly, this phenomenon is conducive to regulatory failure, which in turn, results in unfairness within the free trade regime.

In response to a long history of transnational bribery the U.S. government enacted the *Foreign Corrupt Practice Act* (FCPA) in 1977; the legislation was later amended in 1988. It was principally designed to criminalise transnational bribery committed by American citizens or residents.[133] However, because the U.S. relies heavily on international cooperation in fighting transnational bribery, since the problem of corruption must be addressed at the international level,[134] it has also become a member of the Organization of American States (OAS), a treaty which consists of over thirty countries in North and South America, each committed under the treaty to criminalising bribery of foreign officials.[135] Although both legal instruments are applicable to deal with American citizens or residents who are involved in transnational bribery, the OAS treaty contemplates coordination from foreign countries while the FCPA does not.

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[130] Philip M. Nichols, 'Corruption in the World Trade Organization: Discerning the Limits of the World Trade Organization's Authority', *New York Journal of International Law and Politics*, 1996, at 757-60.
[131] Henry Bosh, 'Growing threat of international corruption', *The Jarkata Post*, 30 September 1997.
[132] See for example 'Ramos Orders Probe into Government Computer Deal', Japan Economics Newsletter, 17 May 1996, cited in Steven R. Salbu, 'Bribery in Global Market: A Critical Analysis of the Foreign Corrupt Practice Act', *Washington&Lee Law Review*, 1997, at 232.
[133] Philip M. Nichols, 'Corruption in the World Trade Organization: Discerning the Limits of the World Trade Organization's Authority', at 762.
[134] Daniel Kadlac, 'Corruption: The Facts', *Foreign Policy*, 1997, at 114.
[135] Philip M. Nichols at. 763-4.

What particular forms of international action are likely to be most appropriate and effective, particularly in addressing the problem of corruption in regard to the environment? It seems clear that international trade and transnational bribery are inseparable; accordingly, Philip Nichols advocates that the World Trade Organization (WTO), which is the most extensive international trade body, should encompass the corruption issue within its jurisdiction. In so doing, he suggests that WTO should urge its member countries to adopt either the *Foreign Corrupt Practice Act* or the Treaty of the Organization of American States as guidelines towards eradicating the problem of corruption, particularly transnational bribery.[136]

The idea of integrating the corruption issue within WTO is not new. According to Steven Salbu, WTO has planned to embark on negotiation with regard to the issues of transparency, openness, and due process in government procurement practices among WTO members[137]. This could readily be applied to the particular area of environment, for example, air and water. Unfortunately at the time of writing, the plan remains in draft form and is not publicly available. Nevertheless, it is clear that through it, the corruption issue will be incorporated in the WTO agenda in the future.

Corruption has also been the subject of recent discussion among OECD countries; a convention on the subject took place in early 1998. Twenty-nine representatives of OECD countries and five others attended the convention which agreed that bribing any foreign official should be treated as a crime, rather than as business as usual.[138] The implementation of the convention will require the thirty-four signatories to adopt the provisions of the convention in their domestic laws[139] with enforcement provisions including criminal prosecution and the imposition of heavy penalties on both corporations and individuals guilty of a violation.

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[136] Ibid, at 759.
[137] Steven R. Salbu, 'Bribery in the Global Market: A Critical Analysis of the Foreign Current Corrupt Practice Act', at 235.
[138] Michael Hershman, 'A blow against bribery', *The Financial Times* (US Edition), 23 February 1998, at 14. See also Suchada Kulawat, 'Securing global remedies to a worldwide curse', *Bangkok Post*, 18 December 1997.
[139] Stephen Silber, QC, 'New definitions to root out corruption', *The Times*, 3 March 1998.

Combating corruption in international trade: its effect on Thai air and water pollution law

Considering its status as a member of WTO, as well as its usual responsiveness to international cooperation as previously discussed, it is likely that the Thai government will be willing to criminalise transnational bribery if pressure to do so is imposed under the international trade regime. As for OECD, it may be argued that as Thailand is not a member, the OECD initiatives will have less direct effect on Thailand.

However, Thailand depends heavily on international trade, including trade with OECD countries. Thus, Thailand has to ensure that there is no corruption involved in its trade with the countries bound by the OECD convention. As Chapter 5 has shown, corruption is one of the factors leading to regulatory failure in the environmental area.[140] It can be anticipated that such an OECD-supported convention will bring about more compliance with environmental regulation in Thailand because of the heavy dependence on international trade.

External pressure on Thailand through the WTO could in the future become an important tool of environmental policy, providing one means of penalising corruption and reducing opportunities for corrupt enterprises to ignore their environmental obligations. Once criminalisation of corruption becomes an international obligation with which Thailand has to comply, it will ensure that the free trade policy will not be undermined by transnational corruption in which Thai authorities or private sectors are involved. Such an obligation will create pressure for the Thai authorities to implement the law in a transparent manner to maintain its credibility among the global community. This can help address the problem of lack of political will and corruption which are conducive to environmental degradation.

[140] Examples are the Mab Ta Phut and Mae Moh air pollution cases discussed in Chapter 5.

D. International Organization for Standardisation (ISO)

History and context

As discussed above, the environment has come to be regarded as an important component of a trade regime, and therefore is included in a number of international trade agreements. However, although the inclusion of environmental provisions in international treaties can make an important contribution to environmental protection at the national level, it is far from being a complete solution. On the contrary, although international treaties create obligations among state parties, the discussion in Chapter 4 demonstrates that the government alone (particularly in developing or newly developed countries) is not reliable in implementing and enforcing environmental regulations.

As policy-makers increasingly recognise the limits of government-dependent strategies (including command and control regulation), they have begun to search for other mechanisms to complement or supplement government efforts. In particular, increasing attention is being given to means of protecting the environment by parties other than government, including business itself. Business is now being targeted not only as one of the main causes of pollution and environmental degradation[141], but also as the party best able to find a solution. Agenda 21 in particular places great emphasis on the constructive contribution of business to pollution prevention and control, and urges business and industry to take much greater responsibility in helping solve the environmental problems they cause .[142]

What roles can business and industry play in helping protect the environment, and what mechanisms and strategies are most suited to enable them to play these roles? As the Business Council for Sustainable Development (BCSD) stated during the 1992 UNCED in Rio de Janeiro: 'business and industry need tools to help measure environmental performance and develop environmental management techniques'.[143] One such tool of paramount potential and importance is environmental management systems (EMS). Such systems provide a structure for planning, implementation, reviewing and revising

[141] Robin Bidwell, 'Business and the Environment: A Changing Agenda', *TEI Quarterly Environment Journal*, 1995, at 28-9.

[142] See Agenda 21.

[143] Bruce Kean Am, 'ISO 14000 Regulation, Trade and Environment 'Dangers and Weaknesses,'' a paper presented in the conference ISO 14000: Regulation, Trade and Environment, organised by

a program to address those parts of an enterprise's operations that can affect the environment. A good EMS allows an enterprise to understand and track its environmental performance and provides a framework for implementing improvements. If successful, an EMS will both enhance and continuously improve compliance with environmental laws and also the broader company policies relating to the environment and environmental outcomes.

Such systems have been developed in an *ad hoc* fashion since the early 1990s. There were various moves towards standardisation at national and regional level, the most important being the British Standard BS7750, and the European Eco-Management and Audit Scheme, EMAS. In response to the BCSD's demand described above, and as a means of providing a truly international standard for EMS, the International Organisation for Standardisation (ISO) was urged to develop what subsequently became the ISO 14000 series of standards. Its mission was

> to produce an international standard which would provide a common (global) approach to environmental management and the measurement of environmental performance, thereby facilitating international trade and reducing the costs of enterprises operating globally. In so doing, it offered companies a standardised approach to better environmental management, and in turn, to better environmental performance.[144]

Why was ISO asked to take on this mission? Before answering this question, it is necessary to explore the background of the International Standards Organisation itself. Based in Geneva, Switzerland, the ISO was founded in 1947 to facilitate the exchange of goods and services through standardisation.[145] While ISO is a non-governmental organisation (NGO), it holds such a high reputation that the standards issued by the Organisation have become internationally acceptable. Also, although membership of ISO is voluntary, the organisation is recognised and respected throughout the world. At

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Australian Centre for Environmental Law-Australian National University, on 2 July 1996 in Canberra, at 1.

[144] Neil Gunningham and Daren Sinclair, 'Environmental Management Systems, Regulation and the Pulp and Paper Industry: ISO 14000 in Practice', *Environmental and Planning Law Journal*, Vol. 16, No. 1, February 1999, at 5-23.

[145] David Nelson and Todd Maiden, *The Implications and effects of the ISO 14000 International Environmental Standard of Industries in Thailand*, 1995, at 5.

present, over 100 countries have become members of this private organisation[146]; these include Thailand.

ISO deals with a number of sets of standards. In 1987, it published ISO 9000, the standard which dealt with product quality. Not surprisingly, the ultimate goal of the standard was to facilitate international trade.[147] ISO 9000 gained popularity very quickly. One of many factors enhancing its popularity was that the standards were applicable to a wide range of industries and services. Certification to the ISO 9000 series has become a prerequisite for doing business in many parts of the world.[148]

The success of ISO 9000 encouraged the international community to entrust to ISO the issue of an international environmental standard to respond to Agenda 21's exhortation to business to take responsibility for improving its own environmental performance.[149] In so doing, the ISO formed the Strategic Advisory Group on the Environment (SAGE) to determine the need for standardisation of environmental management practices to promote sustainable industrial development. SAGE in its first meeting in September 1991 established seven subgroups to address the issue. They are environmental management systems; environmental auditing; labelling; standards for environmental performance evaluation; life cycle analysis; environmental aspects in product standards; and industry mobilisation planning.[150]

Of central importance was the development of an environmental management system, and SAGE stressed this issue in its October 1992 meeting. It recommended that ISO should establish a Technical Committee to deal specifically with the new standards for environmental management systems. Accordingly, ISO formed the Technical Committee 207 (widely known as TC 207) in June 1993 to carry on the responsibility of developing the uniform international standards which now have become known as ISO

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[146] Ibid.

[147] Naomi Roht-Arriaza, 'Shifting the Point of Regulation: The International Organization for Standardization and Global Lawmaking on Trade and the Environment', *Ecology Law Quarterly*, Vol. 22, No. 3, at 499.

[148] David Nelson and Todd Maiden, *The Implications and effects of the ISO 14000 International Environmental Standard of Industries in Thailand* , at 6.

[149] Apparently, environmental issues had drawn interest from ISO even before ISO 14000 was formally introduced. As Naomi Roht-Arriaza points out, while the explicit goal of ISO 9000 was to harmonise quality assurance requirements to facilitate international trade, several provisions thereof directed the way towards more specific environmental management standards. See Naomi Roht-Arriaza, at 499.

[150] Naomi Roht-Arriaza, 'Shifting the Point of Regulation: The International Organization for Standardization and Global Lawmaking on Trade and the Environment'at 502.

14000.[151] TC 207 has been divided into a number of subcommittees. These include Subcommittee 1, the task of which has been to develop the environmental management system contained in ISO 14001 and ISO 14004.[152] Subsequently, ISO issued ISO 14001 and ISO 14004 in September 1996.[153] This chapter focuses on ISO 14001, which deals with the specification of the environmental management system. For present purposes, ISO 14004, which serves as a supplement to ISO 14001 by providing guidance on how an EMS should be implemented, is of less importance.[154]

ISO 14001 and its functions

ISO 14001 is a private voluntary standard that provides a framework to assist organisations in identifying and managing their environmental obligations systematically. It aims at directing the use of organisational resources to yield the most benign environmental effects through reliable management processes, along with well educated employees who are committed to environmental improvements by their organisation.[155] ISO 14001 does not require firms to meet any performance specifications such as specific limits on pollution emissions. Rather, it attempts to assist firms to develop their own EMS within their business operations on a voluntary basis and thus is process-based.[156] Joseph Cascio, Chair of the U.S. Technical Advisory Group to ISO Technical Committee 207 said:

> ISO 14000 isn't about compliance, it's about management. It will make no statement regarding what is desirable for the environment. Neither will it lay out environmental goals, performance levels or technology specifications.[157]

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[151] Christina C. Benson, 'ISO 14000 Environmental Standards', *N.C.J.Int'l L. & Com. Reg.*, Vol. 22, 1996, at 318.

[152] Ibid, at 319.

[153] Donald A. Carr and William L. Thomas, 'Devising a Compliance Strategy under the ISO 14000 International Environmental Management Standards', *Pace Environmental Law Review*, Vol. 15, No. 1, Winter 1997, note 149 at 147.

[154] Prima Wangwongwiroj, *ISO 14000: Environmental Management Standard*, an information paper, 1997, at 10-12.

[155] Christopher L. Bell, 'Bench Test', *The Environmental Forum*, November/December 1997, at 26. See also Joseph Cascio, 'Implications of ISO 14001 for Regulatory Compliance', *National Environmental Enforcement Journal*, June 1996, at 35-6.

[156] Donald A. Carr and William L. Thomas, at 151.

[157] G. House (1995), 'Raising the Green Standard', Industry Week, cited in Neil Gunningham, 'From Adversarialism to Partnership? ISO 14000 and Regulation,' a paper delivered at the conference, ISO 14000: Regulation, Trade and Environment, 2 July 1996, Canberra.

Indeed, the fact that ISO 14001 lacks performance specifications was controversial at the initial stage. Not surprisingly, many countries wanted ISO to adopt international performance standards in order to ensure fair trade among various nations. They argued that as far as fair trade was concerned, it must be developing countries' responsibility to achieve standards the same as those used by their trading partners in developed countries. Apart from the international trade area, environmentalists were also concerned about how effective ISO 14000 could be in the absence of environmental performance specifications[158].

On the other hand, many scholars suggest that having a single set of internationally recognised performance standards would inevitably create burdens for developing countries whose environmental compliance standards were less sophisticated than those of developed countries[159]. Besides, such relatively high standards could be seen from the developing countries' perspective as a trade barrier contrary to the philosophy of WTO.

After a series of gruelling debates, ISO insisted that performance specifications be omitted from the new standards. It justified its decision on the basis that a "one fits all" performance standard would be inconsistent with WTO requirements, the ultimate goal of which is to enhance free trade.[160] Also, ISO realised that there was inadequate participation by many developing countries in the standard-negotiation process: for example at the plenary session of the TC 207 committee meeting only six out of twenty-six delegations were from developing countries.[161] Such a small participation posed a concern that the developing countries would be unwilling to abide by standards, which they did not fully participate in making. This became another reason for ISO to omit the proposal of performance specifications.

Since the introduction of ISO 14001 in late 1996, there has been a steady, and in some countries, rapidly growing, interest in obtaining certification under it. Up to January 1998, approximately 2,800 organisations throughout the world have been awarded ISO 14001 certifications.[162] Increasingly, having an ISO 14001 certificate is considered an important factor in the conduct of business in both domestic and international

[158] Christina C. Benson , 'ISO 14000 Environmental Standards', at 320.
[159] Ibid.
[160] Ibid.
[161] These six countries were Brazil, China, Korea, Malaysia, South Africa, and Thailand. For more detail, see Naomi Roht-Arriaza, at 526.
[162] Christopher Bell, 'Bench Test',*The Environmental Forum*at. November/December, 1997, at 24.

transactions. Why is ISO 14001 so essential that business entrepreneurs are increasingly seeking certification under it? What will happen if they do not?

As discussed earlier, adoption of ISO 14001 is not mandatory. However, any businesses which do not adopt the standard may find themselves at a competitive disadvantage.[163] This is especially the case for developing countries whose economy depends heavily on exports. At present, many multinational corporations such as Matsushita, Sony, Canon, Shell, Esso, and Motorola are moving towards adoption of ISO 14001. Also, some multinational companies such as IBM are contemplating giving priority (in awarding contracts) to suppliers who have received ISO 14001 certificates.

For these reasons an increasing number of firms are seeking ISO 14001 certificates as they view certification as a means of gaining competitiveness not only within a particular country, but among foreign countries as well. Indeed, Christina Benson suggests that an ISO14001 certificate will become a 'global passport' for doing business internationally.[164]

Owing to their export-based economies, a number of countries in Asia have responded positively to ISO 14001.[165] Recently, the government of China, one of the most polluted countries in the region, has required all government agencies to seek ISO 14001 registration.[166] Other export-oriented countries such as Malaysia and South Korea have also taken steps towards ISO 14001 certification.[167] Adoption of ISO 14001 in Asia is not only limited to developing countries. Japan, a developed country, has also shown considerable interest in this international standard. A survey conducted in 1996 by Nihon Keizai Shimbun, a multi-industry trade association, reveals that half of Japanese companies have contemplated registering with ISO 14001.[168]

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[163] See Subhash Puri, *Stepping up to ISO 14000*, 1996, at 22.
[164] Christina Benson, , 'ISO 14000 Environmental Standards', at 341.
[165] The World Bank, Greening Industry: New Roles for Communities, Markets, and Governments, 2000, at 90.
[166] Carl Frankel, at 24.
[167] Christina Benson, 'ISO 14000 Environmental Standards', at 362. See also Robere & Associates, 'Introduction to ISO 14000 Environmental Management System,' a paper presented to the Industrial Estate Authority of Thailand.
[168] Ibid.

ISO 14001 in Thailand

ISO 14001 was not the first experience Thailand has had with environmental management systems The country had previous experience of such systems through several projects including the Industrial Environmental Management Program (IEM), supported by the United States Agency for International Development (USAID) during 1990-1995. This project was implemented by the Federation of Thai Industries, with the principal objective of increasing the institutional capacity of industries in environmental management. Activities under this project emphasised the promotion of cleaner technology, better housekeeping practices, and better resource utilisation.[169]

Another project aimed at promoting environmental management which is still continuing at the time of writing is the Environmental Advisory Assistance for the Industry: Thai-German Technical Co-operation Programme. This project receives financial support from Deutsche Gesellschaft fur Technische Zusammenarbeit (GTZ), while the implementing agency is the Bureau of Industrial Environmental Technology, Department of Industrial Works. The duration of the project is from 1994 to 2001. The project focuses on demonstration and evaluation of cleaner production methods.[170]

Most recently, Thailand received financial support from the Danish Cooperation for Environment and Development (DANCED) to conduct the Project on Promotion of Cleaner Technology in Thai Industry during 1996-1998. Implementing agencies of this project are the Federation of Thai Industries and Thailand Environmental Management. Target groups of the project are the small and medium firms which are major polluters.[171] In the interview with Ms Peeraporn Palapleewan noted earlier, this informant also pointed out that:

> The philosophy of the project is absolutely opposite to the command and control strategy. At the outset the project is voluntary performance. Further, it focuses on how

[169] Thailand Environment Institute, *Cleaner Technology in Thailand*, 1997, at 4.
[170] Ibid, at 8.
[171] Ibid, at 14.

> to prevent pollution by means of management. The project looks at the recruitment of personnel involved in the entire manufacturing process; the use of raw material, machinery, etc...We have convinced the participating firms that the most efficient output is the real profits.
>
> The project does not need high cost. Instead, it looks at management of the firms, which in fact means behaviour of people responsible for managing the firms...After joining the project, around 90 per cent of firms in the pilot phase have more understanding in the concept of cleaner technology and recognise that the technology can play a key role in helping the firms deal with environmental problem without impeding the firms' growth.

In these circumstances of a number of ongoing experiments with environmental management systems in Thailand, it was perhaps to be expected that the introduction of ISO 14001 would be both readily recognised and welcomed within both industry and government in Thailand. This is indeed the case, with both private and public sectors in Thailand giving very considerable attention to ISO 14001 and the number of ISO certified enterprises increasing steadily.

Thailand adopted ISO 14000 in December 1996, only three months after the international standard had come into operation.[172] Indeed, Thailand's attention to this series of international standards had been manifest even before ISO 14000 was issued. As long ago as May 1994, the Thai government sent its delegations to attend the meeting of the plenary session of the TC 207 committee held in Australia. Notably, Thailand was one among six non-OECD countries which attended the meeting, while the other twenty participants came from OECD countries.[173] Although ISO is itself a non-governmental organisation, the entity which represents Thailand in this regard is the Thai Industrial Standard Institute (TISI), a government agency under direct supervision of the Ministry of Industry.[174] This is another indication of Thailand's government interest in this issue.

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[172] Ibid.

[173] Naomi Roth-Arriaza, 'Shifting the Point of Regulation: The International Organization for Standardization and Global Lawmaking on Trade and the Environment', at 526.

[174] David Nelson and Todd Maiden, *The Implications and effects of the ISO 14000 International Environmental Standard of Industries in Thailand*, at 32.

Thailand was also early in developing appropriate accreditation systems for the purposes of ISO 14001. It is, of course, industrial firms themselves which have to develop their own management systems and then apply for ISO 14000 certification. But who is authorised to grant certification? As to domestic agencies, TISI and Thailand Environment Institute (TEI) have been empowered to certify under ISO 14001 while some foreign firms are also involved.[175] Of course, the certificate issuers themselves must have approved qualifications and performance accreditation. To achieve this, the Thai government set up the National Accreditation Council (NAC) as a neutral body to carry out the accreditation tasks. The NAC comprises a number of high profile persons who are involved in environmental issues, chaired by the Minister of Industry.[176] This reflects Thailand's attempt to ensure that the certification process under ISO 14000 is a reliable one.

ISO 14000 gained favour with some major businesses in Thailand not long after its debut. Records show that local firms have an increasing interest in ISO 14001 with the number of industrial businesses adopting the standards continuing to grow substantially. To date, there have been approximately 45 firms awarded ISO 14001 certification, most of these being large firms which, far more than small and medium firms, can afford the substantial immediate costs of developing a management system and obtaining certification. Other registrations are imminent. Moreover, as we have seen, a number of pilot projects introducing environmental management systems have been launched, and the Thai government has itself embraced ISO 14001.

Why have a significant number of large players already adopted ISO 14001 and why is this number steadily increasing? And how do we assess the potential contribution of ISO 14001 more generally? There are many debates concerning the advantages and disadvantages of adopting and implementing ISO 14001. However, as this thesis focuses on air and water pollution, discussion will be limited to the potential effects of ISO 14001 on these types of pollution in Thailand. Central questions are: how can ISO 14001, which works on a voluntary basis, improve the environmental situation? Will

[175] Interview with Ms Prima Wangwongwatana.

[176] Other members of NAC are the Permanent Secretary for Science, Technology and Environment, Permanent Secretary for Public Health, Director-General of the Office of the Consumer Protection Board, Chairman of the Federation of Thai Industries or representative, Chairman of the Board of Trade of Thailand. See Ministry of Industry, *National Accreditation Council*, a public relation pamphlet, 1996, for more detail.

ISO 14001 also improve environmental regulation in Thailand? And are there any other incentives for industry to adopt the international standard?

Potential benefits of ISO 14001

A great deal of research shows that system-based strategies, appropriately implemented, can be vital in enhancing firms' productivity, despite some costs at the initial stage.[177] This is increasingly being recognised among some sectors of Thai business.

The evidence also suggests that a system-based approach, applied by the individual enterprise, can deliver a substantial reduction in environment impact and in the risks of an environmental disaster. Scholars suggest that 80-90 per cent of failures stem from the management or organisational system, while operational error or equipment failures account for only 10-20 per cent of major technological disasters. Those with a successfully implemented environmental management system are at substantially lower risk of environmental disaster.[178]

Apart from the benefits of implementing ISO 14001 in productivity benefits and mitigation of risk, there are other compelling reasons for Thai companies to adopt the ISO standard. These were summarised in my interview with Ms Prima Wangwongwiroj, a director of the Thai Industrial Standard Institute (TISI) . She pointed out:

> There are two purposes of ISO 14000's application in Thailand. One is aimed at export capability in the global market, the other is to use the standard for domestic industry....[179]

Regarding the first issue, as in many other developing countries, Thailand's economy depends heavily on an export-oriented manufacturing industry. The country supplies manufactured products for both local and Thailand-based transnational customers. In this context, there are two reasons why ISO 14001 is seen as having the potential to boost export business. First, many large exporting firms believe that they can gain a market advantage through ISO 14001 certification because this will ensure they are seen

[177] Neil Gunningham, 'From Adversarialism to Partnership?: ISO 14000 and Regualtion', a paper presented in the seminar ISO 14000: Regulation, Trade and Environment, 2 July 1996, in Canberra, at 9-10.
[178] Ibid.
[179] The interview was conducted on 20 February 1998.

as having the right environmental credentials to compete in increasingly environmentally conscious markets. Second, suppliers to larger organisations may also feel compelled to obtain ISO 14001 certification to satisfy the requirements of those whom they supply. As discussed earlier, some multinational companies such as IBM are giving priority to those who have received ISO 14001 certificates as their suppliers.[180] This demand will push many firms to reach the international standard to maintain their status as suppliers to large conglomerates upon whom they are heavily dependent for their economic survival.

Regarding both large exporting firms and suppliers, it appears that international pressure on exporting firms to adopt ISO 14001 has been growing constantly, and in the view of many, Thai industry has no alternative but to respond to this pressure by obtaining ISO 14001 certification as the "global passport" for access to foreign markets.[181] This is evident by the above interview statement made by Ms Prima Wangwongwiroj who also said that the Thai government aims to use ISO 14001 certification to enhance global export capability. Similarly, the late Dr Dhira Panthumvanich, former Director of Thailand Environment Institute, also supported the use of this global standard as a means to press Thai industry to improve its environmental performance. In his view:

> International standards such as ISO 14000 also have potential to encourage all businesses to improve their standards of environmental management to meet those of the international community.[182]

Take the case of the rubber industry. Thailand is the world's biggest rubber exporter with approximately 30 per cent of the international market. In 1998 the Ministry of Agriculture announced that it would apply ISO 14001 certification to all rubber products. What makes the government agency insist on the standard despite Thailand's having such a large share in the global rubber market? According to Mr Suthiporn Chirapanda, deputy permanent secretary of the agency, overseas buyers have increasingly made inquiries about the origin and manufacturing process of rubber products. Moreover, major customers including the Japanese have adopted a policy of

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[180] See note 140 *supra*
[181] Christina Benson, 'ISO 14000 Environmental Standards', at 341.
[182] The interview took place on 7 December 1996.

not buying wood products and by-products unless they are certified as coming from forests that are managed in a best practice manner.

For similar reasons, Malaysia, another main rubber exporter, has also recently adopted ISO 14001 for rubber products.[183] This example demonstrates that not only customer demand, but also the performance of business competitors, can force Thai enterprises to adopt ISO 14001 to maintain their international competitiveness.

These examples also illustrate the considerable power of "green consumers". On issues such as forest and rubber certification, there is considerable evidence that environmental accreditation schemes (including but not limited to ISO 14001) will be the single most powerful driver of improved environmental performance in forest industries, at least for the next few years.[184] However, consumer power is by no means limited to 'green' as distinct from 'brown' issues. When I interviewed Mr Siritan Pairojboriboon, the director of the Pollution Control Department, he was equally emphatic about the power of consumers in the area of pollution control:

> I would like to say that ISO 14000 is a kind of consumer power because consumers can force the business through this standard.[185]

We turn next to the benefits of ISO 14001 for domestic industry, and for government (regarding regulatory redesign). Chapter 4 showed that stringent regulation is far from being a panacea for pollution control. On the contrary, regulation often fails, for reasons ranging from reluctance among regulators to enforce, to strong resistance from regulated entities.

How then might regulation be redesigned in order to become more efficient and effective? In recent times, many regulatory strategists have begun to explore the scope for regulatory flexibility. In relation to ISO 14001 in particular, there have been a number of attempts throughout the world to link adoption of the standard with greater flexibility both in regulation and in its enforcement. Almost all these initiatives are based on the premise that if firms can be persuaded to introduce environmental

[183] Uamdao Noikorn, 'ISO 14000 Series to be Applied: New Standard of Farm Products', *Bangkok Post*, 25 August 1998.
[184] Ibid.
[185] The interview took place on 19 January 1998.

management systems such as ISO 14001, perhaps together with other requirements such as community oversight, this will lock them into a cycle of continual improvement and cultural change, and lead them towards environmental best practice. If this is indeed the case then such firms can be largely left alone by regulators, who will be confident in the firms' ability to regulate themselves through their management systems and related audits. Accordingly they can offer EMS-based firms various regulatory concessions such as less frequent (or no) regular inspections, mitigation of penalties in the event of breach, and public relations benefits (such as a logo for EMS-based firms). The attraction for the regulator is the ability to save regulatory resources which can then be redeployed towards the worst (by implication non-EMS-based) enterprises. The attraction for the firm is that, in addition to any productivity-based or export market-based advantages of ISO certification, they gain greater freedom from government intervention.

Examples of the initiatives for regulatory flexibility in relation to ISO 14001 are the Project of Excellence and Leadership (Project XL), and the Environmental Leadership Program (ELP) introduced by USEPA as discussed in Chapter 6.

Similar ISO-related regulatory flexibility initiatives are also happening in Asia. In Japan, many large and powerful companies are asking the government to reduce regulatory rigidity in exchange for making ISO certification compulsory.[186] In contrast, in Thailand it is the government which has invited industry to trade off adoption of the standard with more regulatory flexibility. Under the Thai approach, it appears that those who are awarded ISO 14001 certification will receive benefits, in addition to improved business competitiveness, in the form of less scrutiny from the government. This is evident from my interview with Ms Prima Wangwongwiroj, a director of TISI, who said:

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[186] Neil Gunningham, 'From Adversarialism to Partnership?: ISO 14000 and Regualtion', at 13-4. However, size of firms is not always a determinant for adoption of environmental standards. Research has found that the firm's decision-makers play a crucial role in adopting and implementing the standards. See Naomi Roht-Arriaza, at 532 for more detail. This argument is supported by Ms Peeraporn Palapleewan's statement:

> There are some medium and small firms which have joined our (cleaner technology) projects. I have found that only the firms whose decision-makers have environmental awareness...want to put the cleaner technology in their agenda.

> (the benefit of) the standard for domestic industry (is that) those who have received ISO 14000 certificates will not be inspected seriously by factory inspectors.[187]

Dr Prasert Tapaneeyangkul, Technical Adviser, the Department of Industrial Work, similarly pointed out that:

> Government agencies also support the plants which have adopted ISO 14001. We have instructed our plant inspectors to be flexible towards these plants.

The favour given to firms holding ISO 14001 certification may well in future go beyond the inspection stage. For example, there have been many suggestions that having the ISO standard in place should also be regarded as a mitigating factor at the prosecutorial and sentencing levels.[188] Most recently, Donald Carr and William Thomas have suggested that firms which adopt ISO14001 should receive prosecutorial leniency, provided that such a program reflects the unique structure of the organisation; shows promise that it will help the firms establish a pattern of continual improvement; and at the same time demonstrates its effectiveness to outsiders.[189]

The need for regulatory flexibility relying on ISO certification as an alternative to conventional regulation is particularly compelling in the Thai situation where inspectors are overwhelmed by the number of enterprises they must inspect.[190] However, while industry may benefit from less government monitoring and inspection in the light of ISO 14001 certification, from an environmental perspective a set of questions arises: how can one be sure that ISO14001 will improve environmental performance in the absence of close monitoring and inspections; and can ISO 14001 supersede regulation?

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[187] The interview was conducted on 20 February 1998.

[188] See Joseph Cascio, 'Implications of ISO 14001 for Regulatory Compliance', at 38.

[189] Donald Carr and William Thomas, at 231. In fact, EPA had introduced the idea of counting a firm's 'good environmental behavior' as a mitigating factor to receive prosecutorial and sentencing leniency from the government long before ISO 14001 emerged. EPA and the Department of Justice (DOJ) issued guidance for the exercise of discretion in investigation and prosecution. Under this scheme, the facts that a firm could demonstrate that it had a comprehensive self-evaluation program, voluntarily revealed any violation, and promptly remedied any faults would be considered as mitigating factors, resulting in EPA's exercise of investigative discretion. See Eric Orts, 'Reflexive Environmental Law', *Northwestern University Law Review* Vol. 89, 1277(1995), at 1275-8.

[190] In Chapter 4, Dr Prakit Kirawanich, former Director of the Pollution Control Department was cited as giving the lack of manpower as one reason why the environmental problem in Thailand has not improved.

Potential Drawbacks of ISO 14001

As has been noted, ISO 14001 is a processed-based, not an outcome-based standard.[191] One therefore cannot rely on ISO 14001 alone because implementation of the standard in itself will not guarantee results as good as or better than those required by regulations. A quality management standard could ensure the manufacture of concrete life vests of constant quality but that in itself could not prevent their users from drowning!

In Thailand and other Asian countries, policy-makers are already acutely aware that the mere existence of a system (for management or treatment of waste) does not guarantee its successful implementation or desirable environmental consequences. Thus, Thailand has frequently experienced non-compliance from firms which were equipped with pollution treatment systems. Mr Vira Mavichak, Deputy Director-General of the Department of Industrial Work, stated during my fieldwork:

> Some big firms still discharged wastewater or polluted air to the public despite good treatment systems.[192]

Clearly, having systems established by no means guarantees that firms will operate the systems appropriately or reduce their environmental damage.

Probably some form of regulation must remain to ensure that the firms' environmental performance achieves a particular level despite the existence of ISO 14001 certification.[193] According to Ed Shoener, a member of the U.S. Technical Advisory Group to ISO, environmental regulations and standards are always needed despite ISO 14001 certification.[194] Robert Stephens, chair of the Multi-State Working Group on ISO 14000, also suggests that government must be involved in ensuring that the ISO 14001 certified firms actually implement the standard.[195] However, the nature of the regulation required is likely to be that of a performance standard rather than that of a specific

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[191] Neil Gunningham, 'From Adversarialism to Partnership?: ISO 14000 and Regualtion', at 18.

[192] The interview was conducted on 26 December 1996.

[193] Christina Benson, at 319. See also Neil Gunningham, 'From Adversarialism to Partnership?: ISO 14000 and Regualtion', at 11.

[194] Ed Shoener, 'No Substitute For Legal Safeguards', *The Environmental Forum*, November/December 1997, at 27.

[195] Robert Stephens, 'Government Has No Choice But to Get Involved', *The Environmental Forum*, November/December 1997, at 30-1.

environmental technology, thereby leaving industry free as to how it reaches (perhaps through its management system) a particular environmental goal.

ISO 14001 and its effect on Thai pollution law

As discussed above, ISO 14001 is gaining popularity exponentially in many countries. Since Thailand depends heavily on exports, it must make sure that it meets this international standard and as such, supply chain pressure, at least for exporting firms, which will persuade them to certify under ISO 14001.

At the same time, there is potential to use ISO 14001 internally, as an alternative to conventional regulation. However, because ISO 14001 is process not outcome-based, regulations will still be necessary as a performance-based underpinning to such an environmental management standard.

Against these background, regulatory flexibility has the considerable attraction of relieving much of the regulatory burden on regulators, passing much of this back to the firm to regulate itself, but overseen by government, by external auditors and by third party NGOs. The model of self-regulation, or rather co-regulation described in Chapter 6 should provide a means of achieving better environmental outcomes under this approach. Self-regulation provides a 'win-win' solution as it allows firms to be flexible in managing their environmental performance according to their resource availability, as long as they can meet the pollution control requirements. From the government's perspective, self-regulation also helps reduce regulators' workload. In sum, ISO 14001 can be important in coercing Thailand companies to properly implement and enforce domestic environmental law.[196]

IV. Implementing international environmental regulations

As Peter Yeager postulates, the goal of a regulatory scheme is not achieved at the completion of legislative promulgation.[197] Many scholars suggest that after regulation is enacted, it must be implemented effectively to translate what is stipulated in the law into

[196] For further details about self-regulation, see Chapter 6.
[197] Peter Yeager, *The Limits of Law: the Public Regulation of Private Pollution*, 1991, at 29.

action.[198] A question which arises here is: how can international environmental regulation be implemented effectively at the domestic level, especially given the existence of national sovereignty?

Most international environmental agreements, no matter in what form, hard or soft laws, require signatories to take appropriate actions to implement and enforce the international agreements in their domestic settings. For example, there is an expectation that signatories to such an agreement will enact legislation related to environmental protection consistent with the agreement, as well as develop national law regarding liability and compensation for the victims of pollution and concerning other environmental damage[199]; adopt appropriate legislative or administrative measures; and cooperate in harmonising appropriate policies to implement international law.[200] To give a specific example, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal 1989 mandates each party to take appropriate legal, administrative and other measures to implement and enforce the provisions in the Convention.[201]

Who makes international environmental regulation work domestically? Given that it is the government of each signatory which enters into agreements, it is undeniable that the task of making international law work at the domestic level belongs to the government. However, the findings in Chapter 4 showed that some factors responsible for regulatory failure are related to the government in one way or another. These include lack of political will, and corruption. So how far can one rely on government alone to comply with international commitments? Valuable support may be given by non-government organisations.

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[198] Ian Ayres and John Braithwaite, *Responsive Regulation: Transcending the Regulation Debate*, 1986, at 125. See also Cheryl Wasserman, *The Principle of Environmental Enforcement and Beyond: Building Institutional Capacity*, 1994, at 16.

[199] See the United Nations Conference on Environment and Development, Principles 11 and 13.

[200] See Vienna Convention for the Protection of the Ozone Layer 1985, Articles 2 (2) b.

[201] See Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal 1989, Article 4 (4).

A. The role of non-governmental organisations (NGOs) in implementing international environmental regulation at the domestic level

Involvement of NGOs at the global level is not new. The year 1945 saw the NGOs' first participation in an international forum, at which they were granted by the United Nations the status of consultants.[202] More recently, as environmental degradation has become a global concern, the involvement of NGOs has gained momentum exponentially.[203] What makes NGOs so widely recognised? How has the NGOs' involvement become entrenched in implementing environmental regulation? Research has shown that the diverse expertise and experience of the people in NGOs have created trust in their commitment and ability to protect the environment.[204]

Increasing recognition of the vital role of NGOs is also evident from the fact that this role has been included in a number of international regulations. The Rio Declaration states that "environmental issues are best handled with the participation of all concerned citizens at the relevant level", while Chapter 27 of Agenda 21 states that NGOs can play a key role in program delivery and design, community education and social cohesion which is significant for community involvement.[205]

NGOs have many roles in this regard, including information collection, analysis and exchange; identification of issues; participation as observers in international organisations as well as treaty negotiation. More specifically to the issue of implementation, they also monitor compliance with the provisions of international agreements.[206]

The strengths of NGOs enumerated above spontaneously create pressure on governments to implement environmental law. In the United States, the Environmental Defence Fund (EDF), one of the leading NGOs, has had a highly qualified staff.

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[202] Ibid, at 133.
[203] James Cameron, 'Future Directions in International Environmental Law: Precaution, Integration and Non-state Actors', *The Dalhousie Law Journal*, Spring 1996, at 133.
[204] Kaewsun Atibodhi, 'Public Participation Priorities', a proceeding of *Environmental Priorities in Southeast Asian Nations*, 1997, at72.
[205] See Ben Boer, Rob Fowler, and Neil Gunningham, *Agenda 21: The Legal Implications*, at 36.
[206] James Cameron, at 134.

Included in its mandate is a commitment to work with the private sector to reduce pollution. For example, EDF has been very successful in cooperating with McDonald's to develop a program which has reduced the company's solid wastes by over 80 per cent. In Indonesia, an NGO by the name of Pelangi has been involved in a series of technical exchanges between the U.S. and Germany and Indonesia's national electric power utility to improve energy efficiency. The cooperative activity has yielded positive results.[207]

Another important role of NGOs with regard to law implementation is to push governments to enact "community right-to-know" legislation, aimed at releasing information related to any substances or activities possibly harmful to the environment and the public. In Australia, following the successful example of the Toxic Release Inventory in the United States, right-to-know draft legislation is on the verge of being introduced in the Federal Parliament.[208] The right-to-know issue has drawn attention from those concerned even at the voluntary level. Currently, the chemical industry's Responsible Care program has included a code of practice on community right to know.[209]

Significantly, NGOs are indispensable in the process by which international environmental soft law may be implemented successfully. Despite its weakness in implementation and enforcement as discussed earlier, some scholars suggest that soft law can evolve into hard law, which in turn will strengthen its ability to be implemented as well as enforced.[210] Notably, the manner in which the soft law is transformed into hard law is through repetition. This includes transmission of basically the same message; cross-references from one institution to another; and recurrent invocation of the same rules formulated in a variety of ways.[211] The more often international environmental soft law is referred to, the more opportunity it has to evolve into hard law. Research has found that NGOs can play a significant role in ensuring this repetition. An example is the principle of information and consultation which has been

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[207] Peter J. Illig, 'Public Participation Priorities', a proceeding of *Environmental Priorities in Southeast Asian Nations*, 1997, at 68.

[208] Neil Gunningham and Darren Sinclair, 'Environmental Management Systems, Regulation and the Pulp and Paper Industry: ISO 14000 in Practice', at 5-23.

[209] See Ben Boer, Rob Fowler, and Neil Gunningham, *Agenda 21: The Legal Implications*, at 37.

[210] See Peter Drahos, 'Thinking strategically about intellectual property rights', at 205-6. Such suggestions however draw an argument that transformation of soft law to hard law should be considered on a case-by-case basis. See Anthony D'Amato and Kirsten (eds), at 57 for more detail.

[211] Anthony D'Amato and Kirsten Engel (eds), at 55-6.

prevalent in international environmental agreements. This obligation to share information has been repeatedly addressed in recommendations and resolutions for many years by many NGOs, including the Institution of International Law (IIL) which wrote the same principle in its resolutions of 1961, 1979, and 1981, and the International Law Association (ILA) which did the same in its resolutions of 1966 and 1982.[212]

B. NGOs and implementation of international environmental regulation in Thailand

As briefly discussed in Chapter 2, environmental NGOs have emerged in Thailand along with the degradation of natural resources and environment stemming from unplanned and poorly managed industrialisation. Their activities however did not receive cooperative responses from the government; on the contrary, there were many disagreements between governments and NGOs. The reasons include the government's concern to boost economic growth regardless of the devastation of natural resources and environment which was antithetical to the concerns of environmental NGOs.[213]

However, NGO participation has gradually become more acceptable as evidenced by its inclusion in the 'big bang' reforms. For example, the 1992 *Enhancement Act* allows a registered NGO certain privileges, including the right to receive assistance and support on some activities from the government.[214] These entitlements have attracted many NGOs to register with the government. According to the Office of Environmental Policy and Planning, 65 NGOs have been registered throughout Thailand. There are also about 100 NGOs which have not been registered because they do not meet the 'juristic person' qualification. Despite an absence of registration, these NGOs have been active in creating and expanding the network of people committed to safeguarding the environment and natural resources.[215]

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[212] Apart from NGOs, many supranational institutions also did the same. Examples include UNEP Draft Principles of Conduct on Shared Natural Resources of 1978; and OECD Council recommendations on Transfrontier Pollution and the Implementation of a Regime of Equal Right of Access and Non-discrimination in relation to Transfrontier Pollution (See Anthony D'Amato and Kirsten Engel (eds) at 56).

[213] Sunee Mallikamarl, *Environmental Law Enforcement*, 1997, at 64.

[214] See Chapter 2 for more details.

[215] Office of Environmental Policy and Planning, *Report on Environmental Situation during 1995-1996*, 1997, at 239.

How could NGOs manage to gain support from the government despite the conflicts described above? Thailand is very sensitive to international pressure and for this reason willing to cooperate with international policies. In 1992 there was another NGO success in that both the Rio Declaration and UNCED included the provision that each member state shall promote public participation, which of course includes NGO activities.[216] Within this broader international context of increasing NGO participation, it is understandable that this participation should be included in the reformed environmental law in spite of any reservations of the Thai government.

To date, Thailand has experienced a number of cases in which NGOs have been involved in law implementation. An example is the case of that Khunying Chodchoy Soponpanich, the president of the Thai Environmental and Community Development Association, an NGO which challenged the Bangkok Metropolitan Administration (BMA) to reveal information regarding environmental effects which in that case resulted from an alleviated train project discussed in Chapter 3. Although Section 6 of the *1992 Enhancement Act* allows the public to have access to information, the Bangkok Governor at the time ignored that requirement. Not until Khunying Chodchoy brought the case to court did the Bangkok Governor agree to release the information.

In another case, the Toxic Smoke Prevention Foundation, another NGO, had great success in promoting its candidate to high political office. As a result of a vigorous and consistent campaign to improve air quality in Bangkok for many years, Dr Pichit Rattakul, president of the NGO, had a landslide victory in the election for Bangkok Governor in May 1996.

Does being an NGO member enable Dr Pichit to work efficiently as the Bangkok Governor? It is undeniable that the expertise and experience he has gained from his NGO activities have helped him in many aspects, for example, his capacity to identify the two main sources of air pollution in Bangkok: building construction, and the trucks

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[216] Agenda 21 declares: The organization of United Nations system and other intergovernmental organizations will need to provide increased financial and administrative support for non-governmental organizations and their self-organised networks, in particular those based in developing countries, contributing to the monitoring and evaluation of Agenda 21 programmes, and provide training for non-governmental organizations...to enhance their partnership role in programme design and implementations (U.N. Doc.A/CONF.151/26 (1992) at 27/12).

Principle 10 of the Rio Declaration reads: States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided (James Cameron, at 135).

which transport construction material to the sites. After issuing warnings to the people concerned to comply with the law, he was severe on the recalcitrant violators. Numerous construction operators have had legal action taken against them as a result of their non-compliance.[217]

A final example is the victory of an environmental activist in an election to become a legislator. In late 1996, Mr Panat Tasneeyanond, the director of the Environmental Law Centre, an active environmental NGO, was elected a member of the Constitution Drafting Assembly (CDA), representing Take province, which was his birthplace and constituency.

How did Mr Panat manage to win the election in Take despite spending most of his time working in Bangkok? What did he contribute to the current constitution? Not surprisingly, it was his high reputation in the environmental area in which he had been involved for many years, along with his role as a main drafter of the current *Enhancement Act* 1992 which led to his election. Mr Panat was a leading architect of the current constitution in regards to environmental protection, as is evident from the unprecedented environment-related provisions introduced in the constitution. For example, it states that any project or activity whose operation may cause severe effects on the environment shall not be allowed to operate, unless the environmental impact is reviewed and assessed by a private agency, which consists of representatives from environmental NGOs, and academic institutions.[218] The current constitution also requires the government to promote and encourage public participation in preservation, maintenance, and protection of the quality of the environment based on the principle of sustainable development. Also, the government is to control and eliminate pollution affecting public health, sanitation, welfare, and quality of life.[219]

It is clear that the inclusion of such environment-related provisions in the constitution will improve Thai environmental regulations, which at the same time will help implement international environmental regulations to which Thailand has been committed.

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[217] Chakkrit Rithmontri, 'Construction Firms Face Touch Action', *Bangkok Post*, 17 May 1997.
[218] See Thai Constitution, Section 56, para 2.
[219] Ibid, Section 79.

It is not certain that the three cases given above demonstrate the success of international environmental regulation in increasing the role of NGOs in implementing the law at the domestic level. As discussed in the previous chapters, passing a new law or having the existing law reformed in Thailand does not necessarily guarantee that the law will be implemented. This situation applies to the case of NGO activities in Thailand although their roles have been endorsed by the law. At present, disagreements between government and NGOs often occur. Extensive research has found that NGOs are still seen by the government and many business entrepreneurs as 'trouble makers' whose activities are likely to impede the progress of the nation.[220] This usually makes the government and business sectors reluctant to render full cooperation to NGOs. Scholars also point out other causes which seriously inhibit the NGOs' capability. These include lack of continuity in NGOs' movements[221]; and lack of funding.[222]

The above discussion shows that NGOs play a key role in translating international environmental regulation into domestic implementation. However, only limited success has so far been achieved. Thus, it is important for Thailand not to be complacent simply because provisions are included in the 'big bang' reforms to empower NGOs, because this is only a first step. Many other things must be done to ensure that these provisions are implemented effectively. NGOs must work hard under the banner of 'sustainable development' to convince all the parties concerned that their movements do not impede economic growth but rather, will help to strengthen national development in the long run. Also, the government and businesses must attune themselves to a global policy which has been open for public participation. Furthermore, the rules governing funding support must be relaxed. Only then will NGOs be capable of generating sufficient funding to perform their activities continuously.

[220] Phaichitr Uathavikul, 'Managing the Environment', *THAILAND: King Bhumibol Adulyadej, The Golden Jubilee 1946-1996*, 1997, at 221-2.

[221] Ibid. Phaichitr Uathavikul also comments that NGOs' protests are usually organised on an *ad hoc* basis. Once the immediate problem is resolved, many NGOs wane.

[222] Office of Environmental Policy and Planning, at 244-5.

V. Conclusion: Will international environmental regulation be more successful in the future?

Thailand has been quite active in entering international environmental agreements; however, no hard-law international agreements in which Thailand is involved deal directly with air and water pollution. Nevertheless, the nation has committed itself to three soft-law international obligations which impinge directly on air and water pollution: Stockholm Declaration; Rio Declaration; and Agenda 21. Although soft international law is not legally binding, Thailand has responded actively to these soft - law international obligations: it adopted many principles generated from the soft laws in the "big bang" reform, such as incentive measures, recognition of the role of public participation and recognition of the role of NGOs.

As environmental issues gain momentum, they are also becoming more integrated within the agendas of many other international institutions whose direct responsibilities are not related to environmental protection; these include the World Bank, IMF, WTO, OECD, and ASEAN. The result has been considerable external pressure on Thailand, to reduce corruption and to put environmental issues higher on its own political agenda, mindful of the development and trade implications of not doing so.

Also, international obligations could force Thailand to focus more on the issue of transparency. Luckily, Thailand has just adopted a concept of good governance mandated by the IMF, thereby committing itself to the principles of transparency, predictability, accountability, and public participation. There is ground for optimism that good governance, along with other international environmental obligations, in conjunction with active and effective participation by NGOs, will help Thailand gradually overcome many problems causing regulatory failure such as corruption, lack of political will and regulatory capture.

Simultaneously, the growing popularity of ISO 14001 could galvanise Thai industries to meet the standard if they want to survive in the export market. In conjunction with regulatory flexibility incentives,. ISO 14001 could also be used as a form of co-regulation, pushing firms to better environmental performance while relieving scarce inspection resources which could then be redeployed elsewhere.

However, it cannot be concluded that the goal of environmental regulation will be achieved merely because of Thailand's implementation of international obligations, or through the growing adoption of ISO 14001. For example, while this chapter shows that Thailand takes international obligations seriously, Chapter 3 shows that Thai environmental regulation is still failing to deliver satisfactory results, despite the "big bang" reform. A large part of the reason is that regulatory implementation and enforcement in Thailand are weak, and have become a cause of failure. There is also a serious possibility that, in an attempt to recover from the economic crisis of 1997, the environment may be sacrificed for the sake of economic growth.

To prevent this situation, public participation, especially through NGOs, has a strong potential to help ensure that environmental regulation is implemented and enforced. As previously discussed, the 'big bang' empowers NGOs to be involved in the regulatory process such as by allowing an individual to file a complaint to the relevant officials, accusing anyone of committing an environmental offence.[223] In this way, national and international NGOs can oversee both regulation and self-regulation and bring pressure for law implementation more generally. This combination of international and, in many respects, informal pressure points may bring about long-term environmental change, and directly influence domestic environmental regulation.

[223] See the 1992 *Enhancement Act*, Sections 6,7,and 8. See also Chapter 2 for more details.

Chapter 8

Conclusion

Against the background of increasing, and potentially overwhelming environmental problems in Thailand, this thesis has argued that a new strategy for environmental protection is required, and in particular, a new approach to environmental regulation, broadly defined. But what type of regulation is best suited to Thailand's unique circumstances?

Focusing on air and water pollution (two of Thailand's most serious problems) the thesis sought to answer this question in stages. It began with an analysis of Thailand's existing regulatory approach, and an examination of the particular cultural and political circumstances which account for the very disappointing lack of progress so far. It followed with an exploration of potential national, and then international, regulatory strategies designed to achieve far more than the regulatory *status quo*. Throughout, it sought to argue that it is inappropriate to simply take 'off the shelf' theories and solutions which may have worked in developed countries such as the USA, Canada, the UK or Australia. While these theories may provide some insights and some may indeed prove useful in Thailand, nevertheless Thai culture, society and politics, are quite distinctive. It will only be by designing solutions appropriate to the Thai context, that effective regulation and positive environmental outcomes are likely to be achieved. Parts Two and Three of the thesis sought to design such solutions.

In Part One, the thesis traced the history of how the law has dealt with environmental problems relating to air and water pollution. It began its investigation by examining Thailand's early environmental law up until 1992. Although laws and regulations involving environmental protection have existed in Thailand for over a century, it was not until the 1970s that the country introduced the first comprehensive law dealing directly with environmental issues: the now-defunct 1975 *Enhancement Act*.

However, although this Act was the product of quite substantial domestic and international pressure, through internal NGOs and the external influence of the Stockholm Declaration, nevertheless, it was not effective in curbing widespread

environmental degradation. A fatal flood in the southern part of Thailand caused by extensive deforestation was cited as one among many examples of such ineffectiveness. But this flood had another consequence, which was to provide a focus, and a rallying point, for pressure for further environmental regulation. The result was the reforms to environmental law of 1992, including the 1992 *Enhancement Act*, the 1992 *Factory Act*, the 1992 *Public Health Act*, and the 1992 *Maintenance of Public Cleanliness Act*, known collectively as the 'big bang' reforms. These were undoubtedly a significant step forward for revitalising Thai environmental regulation.

What measures did the 'big bang' introduce? First, a number of reorganisations of the institutions involved in environmental issues, including the establishment of the Pollution Control Department, and the promotion of the National Environment Board (NEB) to sub-cabinet status, chaired by the Prime Minister were conducted. We also found that the 1992 *Enhancement Act* provides the NEB with significant power, including the power to prescribe environmental quality standards, to approve environmental quality management plans, and to announce pollution control areas.

Another important aspect of the *Enhancement Act* was, for the first time, to give formal recognition and powers to NGOs. The Act entitles a registered NGO to assistance and support from the government on particular activities, including study or research with respect to environmental protection or natural resources conservation. To enhance NGO involvement, the 1992 *Enhancement Act* introduced the right to know about environmental information, and allows the public to have access to any information related to any activity which has a potential to cause environmental degradation from the government.

The polluter pays principle also made its debut in the 1992 *Enhancement Act*, as did strict civil liability. With regard to the latter, the *Enhancement Act* makes the defendant liable for all injuries caused by his or her action, even without showing negligence. The 'big bang' reforms also adopted the idea of incentive measures from the Stockholm Declaration, including the establishment of an environmental fund which could grant loans to support the installation of technologies for pollution abatement. Finally, the reforms attempt to allocate power with regard to environmental planning to local authorities. In doing so, the 1992 *Enhancement Act* mandates the Provincial Governor

whose locality is designated as a pollution control area to formulate an action plan for environmental quality management, and submit the plan to the NEB for approval.

But has air and water pollution in Thailand improved substantially as a result of the 'big bang'? To answer this question the thesis drew on not only the very limited literature which exists, but more importantly, on my fieldwork interviews with a wide range of stakeholders and decision-makers within Thailand's political, regulatory and environmental community. The thesis also provided some case studies, investigating Mab Ta Phut and Mae Moh for air pollution, and Phoenix Pulp and Paper and Klity Mine for water pollution.

Disappointingly, the information received from the above sources indicated that the problems of air and water pollution are still critical despite the 'big bang' reforms. For example, Bangkok, the capital of Thailand, is still ranked in the top fifteen most polluted cities in the world; and the very severe problems of both air and water pollution in Thailand continue to result in widespread damage to the environment and to human health.

The thesis then asked a set of broader questions: why did the 'big bang' reforms achieve relatively little, and what deeper factors in Thailand's political system and culture threaten to undermine not just the 1992 reforms but also future efforts to develop effective environmental regulation in Thailand? From on both the existing literature and our empirical work, we were able to identify a number of factors responsible for the failure of the 'big bang' reforms. The most serious of these relate to aspects of Thailand's political culture, social culture, and corruption.

As for political culture, the thesis argued that the vagueness of many provisions in the 'big bang' legislation were substantially responsible for regulatory failure, because it made some sections of the Act unenforceable. It provided two examples of such ambiguity, one of which is the inclusion of the word 'may' in the 1992 *Enhancement Act*, Section 6. Study of the case between Khunying Chodchoy Soponpanich *et al.*, plaintiffs, and the Bangkok Governor, defendant, showed that this vague provision created uncertainty and brought about a controversial argument if the government had to disclose environmental information to the public. In effect, the very enforceability of the Act was put in doubt. The precise causes of such ambiguity may never be resolved

beyond doubt, the relevant decisions having taken place behind closed doors. Nevertheless, interviews with key decision-makers involved in the decision-making process suggested at least the strong possibility that the ambiguity was caused by political factors and a deliberate attempt to weaken the legislation, rather than incompetence.

Lack of sufficient financial support was another factor identified as crucial in undermining the success of the 'big bang'. This factor reduced the efficiency of regulatory agencies in many aspects, and in particular deprived them of the resources necessary for monitoring and inspection. For example, the IEAT did not have the sophisticated devices necessary to detect the source of airborne pollution: this resulted in slow action in tackling the air pollution problem in Mab Ta Phut. Closely related to this was a more general lack of political will, which contributed in a variety of ways to the 'big bang' reforms' failure. Examples include the fact that although the 1992 *Enhancement Act* stipulates that the prime minister is Chairperson of the National Environment Board (NEB), some Prime Ministers never attended the NEB meetings at all.

We found that regulatory capture also undermined the reforms; this could result from the close relationship between regulators and regulated firms. As records show, the more frequently the regulators interact with firms, the more chance there is that a sympathetic attitude toward the firms develops. Such a close relationship commonly brought about regulatory capture in Thailand. For example, as my empirical work revealed, the Department of Industrial Work's regulators are reluctant to enforce the law against non-compliant plants with which they have a very close relationship. The Thai culture of gratitude also contributes to the risk of regulatory capture: many Thai regulators are reluctant to enforce the law against factories which provide financial or other forms of support to their agencies. The support includes donation of office facilities such as air-conditioners and fax machines to remote and small government agencies whose budget allocation is often insufficient.

Turning to social culture, the thesis suggested that many aspects of Thai culture have become obstacles to the success of the 'big bang' reforms. For example, Thailand was a country with authoritarian rule from 1237 to 1932, and the 'power-oriented trait' which derives from this history still influences many Thai to obey and respect those who have

authority. This undoubtedly inhibits public participation and so the rights bestowed upon NGOs by the 'big bang' reforms (which encourage people to express their opinion straightforwardly, even against the government) are unlikely to be used to the full.

Another example of Thai culture we found responsible for the failure of Thai environmental regulation is the 'culture of compromise', which the Thai adopted from the *middle path* precept under Buddhism. As a result, the Thai prefer to avoid conflict and confrontation and are most reluctant to stand up for their rights. As far as air and water pollution are concerned, we found that many environmental cases in Thailand such as the Mab Ta Phut and Mae Moh cases ended up with a form of compromise which was insufficient to protect the environment. Also, we found in the Klity Mine case that it took the villagers who suffered from contaminated water caused by the mine *30 years* to bring this case to the authorities.

The 'culture of gratitude' also impeded the success of the 'big bang' reforms. We learned that gratitude often makes the Thai forgo principle and prioritise personal obligation. For example, in the case of quarrying in Saraburi, although a number of students and teachers in the schools near quarry plants had silicosis, a lung disease caused by accumulation of small particles of dust stemming from the quarrying operation, they were reluctant to bring the case to the authorities because the plant owners often donate teaching equipment to the schools.

In Chapter 5, the thesis paid particular attention to corruption, which is pervasive in Thailand. But how does corruption affect regulation, especially that related to environmental protection? It showed that corruption has a strong potential to disrupt the goal of regulation and to weaken enforcement and that (as regards air and water pollution) it takes place at two stages: government discretion, and opportunities arising from development projects.

In Thailand, where command and control regulation is still a mainstay of regulatory policy, discretion among government officials involved in implementing and enforcing regulation is inevitable. In a regulatory culture where corruption is entrenched, it was found that regulators turn a blind eye to firms' wrongdoing in exchange for personal interest. Using the Mab Ta Phut air pollution as a case study, this thesis argued that corruption was involved in this case, although, as is usual with corruption, finding

clearly documented evidence is extremely difficult. Its argument was based on the fact that the disaster had continued for over a year without any action being taken by relevant authorities to address the problems; and on suggestions that the factories involved were prepared to take relevant officials and media abroad in order to buy their acquiescence.

As for corruption associated with development projects, we identified, through a series of case studies, circumstances where this situation existed in Thailand. A good example was the Mae Moh scrubber purchase case, in which Mae Moh residents alleged that the EGAT bought used scrubbers from China instead of new ones. This resulted in excessive air pollution generated by its plants which led to a fatal incident.

In view of these substantial political and cultural impediments to the success of environmental regulation in Thailand, the thesis asked how it might be possible to design a regulatory system (broadly defined) capable of overcoming, or at least sidestepping, the major political and cultural obstacles described above, and capable of delivering effective and efficient environmental outcomes.

Again, the thesis drew on the limited literature available which relates to regulation in developing countries, on the much broader (but less relevant) literature on regulation in developed countries, and on our fieldwork interviews. The argument is in two stages: Part Two deals with domestic, and Part Three international dimensions. In Part Two (Chapter 6), five alternative measures: environmental education and training, environmental information, economic instruments, self-regulation, and command and control regulation were suggested. These are suited to addressing Thailand's air and water pollution problems though some of these instruments will be far more valuable than others. The thesis also argued that no single policy instrument can be used in isolation to provide a total solution as all instruments have limitations and some are better suited than others to certain situations.

The thesis began its recommendations with environmental education and training as there is good reason to believe that almost all other policy instruments work better if the public, public interest groups and those who are being asked to change their behaviour (including industry), have sufficient insight into why a sound environment is necessary and how it could be achieved. It was found that Thailand has included environmental

education in its National Policy and Planning on Enhancement and Conservation of the Environment 1997-2016. The thesis also identified a number of environmental education initiatives both on and off campus.

However, it was found that there are too few educational initiatives and that the funding for even such initiatives as exist is insufficient. Many of relevant projects have been financed from those outside the education field: for example, the Dawn Project which targets 600 schools in Thailand is funded by the 'blue fund', administered by the National Energy Bureau. Further environmental education initiatives would represent very good value for money. They are non-intrusive, do not require legislation, are non-coercive and therefore are neither politically or culturally offensive in the Thai context. Yet they could do a great deal to render more effective almost all the other environmental policy instruments described below. Not least, they could counter the aspects of Thai culture which in the past made environmental progress more difficult.

A related but distinct instrument is the disclosure of environmental information, which can be used to empower the public and to facilitate greater public participation in environmental decision-making. The thesis began with the 'community right to know' as a measure to help the public obtain information from the government. It is also necessary that the public receive environmental information from industry directly, and that corporate environmental reporting could play an important role.

The general conclusion is that corporate environmental reporting benefits not only the public, who will be able to know more about firms' environmental performance, but also some firms themselves, because if their environmental performance is sound, they are likely to gain trust from both regulators and the public. In this way, corporate environmental reporting could provide rewards and incentives to environmentally positive firms, while penalising (through public shaming, a useful tactic in Thai culture) those whose environmental performance is poor. However, neither community right to know nor corporate environmental reporting is likely to flourish as a purely voluntary initiative, and there is a role for government (possibly on the Indonesian model) in directing and facilitating such initiatives. It is no coincidence that recent World Bank studies, regard government mandated provision of environmental regulation as a particularly powerful policy tool in developing countries.

The third recommendation is economic instruments. The thesis began by discussing those instruments having potential to help reduce air and water pollution: pollution charges and tax systems, property rights, tradable permits, subsidies, financial assistance, civil liability, and performance bonds. Although economic instruments generally provide flexibility, cost-effectiveness and efficiency, some economic instruments yield better results than others and some are more suited than others to the particular political and cultural context of Thailand. For instance, while tradable permits purport to deal efficiently with a limited number of readily quantifiable pollutants, the problems of corruption, limited technical skills and other failings of regulators including regulatory capture, make their use problematic.

The thesis argued that despite the increasing trend towards the use of economic instruments, as shown by the introduction of the polluter pays principle in the 1992 reforms, many complex issues are still to be resolved. For example, Thailand still needs to develop the expertise to properly formulate and administer these instruments. Take pollution taxes. What industries are to be taxed, and at what levels? Many of these technical problems have not been satisfactorily solved in developed countries which have long experience in the use of these instruments. So it would be naive to expect clear answers to the above questions soon in the case of Thailand. The introduction of many new economic instruments could also confuse and overburden the regulatory system, as well as the regulated parties. Therefore, Thailand should presently focus on selected instruments such as the 'polluter payss principle', which has already been established in the 1992 reforms, and implement that to the fullest extent before progressing to many others.

The thesis then examined self-regulation as another alternative policy tool. It argued that self-regulation has considerable potential in Thailand because it is consistent with key attributes of Thai culture. As the Thai do not like to be forced, even by law, self-regulation may be a more acceptable option than command and control regulation as it provides flexibility for firms to meet environmental goals by their own means. Moreover, self-regulation relies substantially on shaming and public embarrassment, which in Thailand are potent tools, given the importance of not losing face. These factors too, are well suited to the Thai context. Moreover, since government funding for equipment and enough regulators is lacking in Thailand, self - regulation may have the additional virtue of reducing the government's workload.

However, how can one be sure that self-regulated firms will always comply with self regulation? The history of self-regulation in the developed world suggests that it is open to serious abuse, and that on some occasions at least, it will degenerate into a symbolic sham unless there is government monitoring. Mindful of the limitations of self-regulation, the thesis argued that it is only in some circumstances that self-regulation is likely to work in Thailand. These circumstances include the existence of a 'community of shared fate', an underpinning of government regulation (i.e. co-regulation), and third party oversight.

The final policy tool suggested in the thesis for the domestic dimension is command and control regulation. Command and control contains powerful penalties as regulatory sanctions, so it has a strong potential to address environmental problems because these penalties could serve as big sticks if other alternatives (carrots) did not work. Also, firms particularly respond to environmental regulations if they have experienced monitoring and inspection, and even more so if they have been fined or sanctioned.

However, the weaknesses of command and control are particularly distinct in the Thai political and social context. For example, it relies heavily on government oversight. Considering the common problem of inadequate regulatory funds in Thailand, which could lead to a lack of sophisticated equipment, and of sufficient regulators for enforcement, the capacity of the regulators is inevitably undermined. We also found that command and control is vulnerable to many other problems such as corruption, the culture of compromise and regulatory capture. For instance, 'rent-seeking', is pervasive in Thailand, and operates by regulators turning a blind eye to a regulatee's wrongdoing in exchange for benefits provided to them..

How can command and control be made to work, given the many weaknesses if faces in Thailand? The thesis suggested the strategy of the enforcement pyramid paradigm ('carrot and stick'), and argued that smart regulators must be able to manoeuvre a wide range of measures which dovetail with each situation. After a less persuasive measure such as a warning letter is ignored, regulators must rise up the pyramid of enforcement, that is, resort to more stringent measures such as fines or closure of plants, or they must bring the case to court. Despite the problems, the use of severe regulatory measures is still possible in Thailand, as we found in the case of Samutprakarn Provincial District Prosecutor versus the Thai Paper Development Co. Ltd. *et al* when the Samutprakarn

District Court sentenced the first defendant to a fine of 30,000 baht, and the second defendant to three months in prison.

Realising that government regulation is usually limited to interaction between regulators and regulated firms, we also suggested that public interest groups should be added to create more transparency and accountability within the regulatory system. Tripartism is particularly appropriate for Thailand where the problems of corruption and regulatory capture are mainly facilitated by the close relationship between government regulators and firms. The thesis also made a number of specific recommendations on how to make tripartism work best in Thailand, which include how publicity and transparency could best be used to make regulation more effective. This last strategy is particularly promising given the importance in Thai culture of not 'losing face'.

In Part Three (Chapter 7), a number of international factors that have the potential to help revitalise Thai environmental regulation were identified. These factors include international agreements, international institutions, international trade, and ISO 14001.

Although traditional accounts of international factors often focus on the role of treaties, we found that none of the hard-law international agreements in which Thailand is involved deals directly with air and water pollution issues. Of more interest are the three soft-law international obligations: Stockholm Declaration, Rio Declaration, and Agenda 21, into which Thailand has entered. Although soft international law is not binding, Thailand responds to such instruments actively; for example, it has adopted a number of principles initiated by the soft laws in the 'big bang' reforms. These include the polluter pays principle, incentive measures, and recognition of the role of public participation and especially NGOs.

The thesis also argued that environmental issues have been increasingly taken into consideration by many other international institutions whose responsibilities are not directly involved with environmental protection. These include the World Bank, IMF, WTO, OECD, and ASEAN. Thailand, and many other countries involved with these institutions, must incorporate environmental issues in their development and trade policies, or face adverse reactions from institutions upon whom they are commonly dependent. Thus these institutions can often have a positive influence on environmental matters should they choose to do so.

Of course, such institutions have not always played such a role. As we have seen the World Bank, for example, has in the past played a very negative role but the 'greening' of the Bank, in more recent years, has meant a substantial turnaround. While Thailand is not directly dependent on World Bank finance at present, it way well be in the future, and the environmental strings that will be attached to such loans can be substantial.

The IMF has also played a very mixed role in the past. However, a concept of good governance mandated by the IMF in recent times, can help create transparency in Thailand, as good governance focuses on the issues of transparency, predictability, accountability, and public participation; and it can reduce corruption. Since the IMF requires good governance as a loan condition, there is reason to believe that Thailand, which has borrowed money from the IMF to improve its financial situation from the crisis in 1997, must now put far greater emphasis on the principles of transparency, predictability, accountability, and public participation. This will help Thailand gradually overcome many problems causing regulatory failure such as lack of political will, regulatory capture, and corruption.

As we found, the growing popularity of ISO 14001 could be another element forcing Thai industries to meet the standard if they want to continue their export businesses. But how can we ensure that when firms obtain ISO 14001 certification, they also implement the system in accordance with the applicable regulations? To prevent this problem, the thesis suggested regulatory flexibility be introduced as a strategy to help compensate for regulatory weakness in the Thai context. One promising way to provide such flexibility is to introduce self-regulation (discussed in Part Two) in firms' environmental management, but complemented by independent third-party audits, and a regulatory safety net.

Finally, the thesis argued that it would be unwise to rely on the various international obligations discussed above as a magic wand to help improve Thailand's environmental *status quo*. As we found earlier, regulatory implementation and enforcement in Thailand are weak, and have become a cause of failure; furthermore, Thailand is currently struggling to recover from the economic crisis in 1997. There is a serious risk that the government might mainly focus on the recovery, and neglect the issue of environment protection and its obligations, whether under soft law, World Bank loans, or its commitment to good governance provided to the IMF in return for its support.

Against these background, the thesis suggested that public participation, especially by NGOs which are empowered by the 'big bang' reforms, will be vitally important. Such NGOs can now get involved directly in the regulatory process and help ensure that environmental regulation is implemented and enforced, and can shame those regulators or companies which fail to meet their obligations. By doing this, national and international NGOs will be able to oversee both regulation and self-regulation and bring pressure for law implementation more generally.

To summarise, despite the 'big bang' reforms, very serious environmental problems, including those related to air and water pollution, still exist in Thailand. These problems will not be solved simply by adopting a series of 'off the peg' instruments taken from the policy agendas of developed countries. On the contrary, the particular cultural, social and political circumstances of Thailand make it imperative that a regulatory strategy is designed for the particular Thai context.

This thesis engages in that task. It offers alternative policy tools to help address air and water pollution problems in Thailand, designed to fit within and appropriate to the Thai political, social, and cultural contexts. The suggested policy instruments have both domestic and international dimensions. However, no single policy instrument can be used in isolation to provide a total solution as all instruments have limitations and some are better suited than others to certain situations. For this reason the thesis has argued, above all, for combinations of regulatory instruments and policy actors.

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